## The Anatomy of Strategy:

## Fighting for the Future Through Narrative, Logic and Grammar

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#### **Abstract**

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This monograph addresses the fact that most writing on strategy is descriptive rather than explanatory. Describing strategy in terms of categories such as "grand strategy," or "theater strategy," or by various analogies, does not illuminate what happens when one practices strategy. Strategy is a cognitive process rather than some tangible object that one can point at or manipulate. Accordingly, this is a theory of how strategy is formed and why it works.

The process that produces strategy is based on the creation of narrative. In this sense, the theory is one of meta-cognition. If one understands how human beings approach certain aspects of reality, then one can move strategy from the realm of intangible process to observable manifestation of community effort. The theory here advanced is heavily influenced by the strategic thought of John Boyd, the idea of relative advantage developed by Everett Dolman, the cognitive research led by Daniel Kahneman, Complexity Theory and Quantum Physics, and the skepticism articulated by Nassim Nicholas Taleb.

Reality is a field of circumstances; these are the fundamental building blocks of any human attempt to change or transform reality. Circumstances are like protons, neutrons and electrons within quantum theory. Strategy is the effort to incorporate purpose into the play of circumstances; strategy provides structure to circumstance. Purpose differentiates circumstances by making some relevant and others irrelevant. Theory describes the larger field of irrelevant circumstances as undifferentiated. Relevance is not absolute or fixed, and thus circumstances move from undifferentiated, to differentiated, to undifferentiated. This pulse of relevance resonates throughout this theory of strategy.

In order to accommodate this play, or the shifting state of things, strategists rely on narratives. A story, as a system of cause and effect driven by purpose, offers a way to orient the environment to communal desire. Communities cannot achieve positions of relative advantage without transforming the context in which they exist. Circumstances create context—thus changing them transforms the context. The process by which this happens involves the nature of narrative, induction and deduction, logic and rules as grammar.

Developing these ideas leads to an anatomy of strategy. This, in turn, paves the way to developing three forms of insight: The strategist may determine whether an adversary is working with strategy or simple expediency, he may estimate, broadly and generally, the truthfulness of other international actors, and he can evaluate the probable efficacy of a proposed strategy. For this reason, investigating the interplay between narrative and strategy opens a useful and practical line of inquiry into the nature and practice of strategy.

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#### Introduction

#### **Background to the Study and the Emergent Question**

For someone who has never before read a National Security Strategy, the experience is likely intriguing but ultimately confusing. A generic conception of strategy might suggest that strategy links policy to operations; it is often the case that this document does little toward this purpose. By this definition, it is in fact often hard to find "strategy" in the NSS.

In 2011, this somewhat naïve observation led the author to explore strategic decision-making through a detailed case study of President George W. Bush's decision to invade Iraq in 2003. This work was driven by an idea that had evolved as a way to approach the "strategyless" NSS: Strategy is built upon a logic encoded within a narrative. This first attempt to develop a theory of strategy formation was heavily indebted to the ideas of Daniel Kahneman and Amos Tversky. Their work on heuristic bias in judgment under uncertainty provided a useful way to identify cognitive pitfalls in strategic discourse. Of nearly equal importance were several texts on community identity and narrative, by scholars such as Benedict Anderson (*Imagined Communities*) and Erich Auerbach (*Mimesis*). These scholars provide insight into the way the form of a narrative reveals how a community understands itself and its reality. Finally, in its discussion of how people experience chance and uncertainty, Nassim Nicholas Taleb's *The Black Swan* provided a critical path from probability and heuristics to identity and narrative.

The present attempt to refine this earlier theory is, in one sense, born of failure. The original intent was to assess the theory through comparing and contrasting three case studies. Clarification of the way that narrative, plot and logic function within strategy formulation is essential to this task. Since the body of theory developing such a holistic explanation of strategy is relatively undeveloped, the case study

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<sup>&</sup>lt;sup>1</sup> The Oxford English Dictionary defines "narrative" as follows: "That part of a deed or document which narrates the relevant or essential facts." A "narration" is "The action of relating or recounting, or the fact of being recounted; an instance of this." Finally, "narrate" means "To relate, recount, give an account of." The etymology of this word is also significant: "L. narrat-, narrare, prob for gnarrare, related to gnarus knowing, and thus ult. to know." In the current work, a narrative recounts relevant circumstances using plot and logic to make, and project into the future, decisions about how relevant circumstances should or should not connect.

comparison proved too problematic. In order to evaluate any historical example, it is necessary to develop a holistic understanding grounded in a sure theoretical foundation.

#### Significance, or "Why Ask Why Strategy Works?"

The utility of an explanatory and holistic understanding is demonstrated by the nearly constant but unexamined coupling of the words "strategy" and "narrative" in current discourse. If one uses Google to search for these words as a linked pair, thousands of entries appear as a result of the query. The popular catch phrase "battle of the narratives," prevalent in the discourse of information operations, yields even more entries. In a more technical vein, the Joint Staff *Planner's Handbook for Operational Design* directs senior planning staffs to "develop a *problem statement*. This statement, *which is the basis for developing the operational approach*, is a narrative that lists the problem's factors, describes areas of tension, competition, and opportunity..." This suggests that narratives provide a link between strategic and operational forms of understanding. Everett Dolman has said of narrative "the strategist makes of history what is needed, a practice long accepted and understood. Ontologically, fact is a derivative of the Latin verb *factum*, which means to do or to make. A fact, then, is a thing or deed made real in the mind. True history is a narrative of such facts." History also seems linked to strategy.

Closely related to this is the popular linkage of strategy and grammar. <sup>4</sup> In the classic *On War*, Clausewitz wrote, "War may have its own grammar, but not its own logic." The idea of a logic-grammar

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<sup>&</sup>lt;sup>2</sup> Joint Staff, J7, *Planner's Handbook for Operational Design, version 1* (Suffolk VA: Joint & Coalition Warfighting, 2011), V-16. (Bold italics are in the original)

<sup>&</sup>lt;sup>3</sup> Everett C. Dolman, *Pure Strategy: Power and Principle in the Space and Information Age* (New York: Frank Cass, 2005), 72-73.

<sup>&</sup>lt;sup>4</sup> It is useful to know what "grammar" is, because the common practice of illustrating grammar by analogy does nothing to *explain* grammar. An example of the use of analogy in discussing grammar comes from the otherwise invaluable Clausewitz scholar Antulio Echevarria, who describes it thus: "Kiesewetter defined logic as the science of the rules of thought. 'Logic,' he explained, 'is to thought what grammar is to language'." Antulio J. Echevarria II, *Clausewitz and Contemporary War* (New York: Oxford U.P., 2007), 38. In the context of logic as a discipline, it has a more significant meaning, captured by the Oxford English Dictionary: "That department of the study of a language which deals with its inflexional forms or their equivalents, and with the rules for employing these correctly... The fundamental principles or rules of an art or science" Grammar is thus inseparable from the rules by which one forms valid propositions or sentences.

interaction has captivated strategic thinkers ever since. Antulio Echevarria believes that, to understand the interaction of policy and war, one must learn "how to keep the grammar of war from dictating the logic." Colin Gray, in describing the interdependency of politics, strategy and military forces, writes "States generally did not wage their frequent wars in a half-hearted fashion... but rather as vigorously as their military instrument and the contemporary 'grammar' of war permitted."

In spite of the tens of thousands of words devoted to strategy as a grammar of action driven by narrative process, very little has been said about *why* strategy might enable a community to achieve a position of advantage. The discourse explaining strategy as a mode of cognition, the application of which leads to success or failure, is sparser still. In order to evaluate strategy as a matter of either contemporary or historical practice, one must have some explicit idea of why strategy effects change.

Strategy is a slippery fish and the tighter one holds it the more it flops about. Colin Grey supports this contention, writing, "The core problem with strategy is that it is a virtual behavior; it has no material existence." Then he goes on to define it as a bridge from policy to power. The ability of strategy to link cognitive and physical domains is a recurring theme, as is its elusive essence. Everett Dolman says it "is not a *thing* that can be poked, prodded, and probed. It is an idea, a product of the *imagination*. It is about the future, and above all it is about change. It is anticipation of the probable and preparation for the possible. It is, in a word, alchemy; a method of transmutation from idea into action." This is to see the making of strategy as a cognitive analog to the distillation of a very fine single malt scotch—there are

<sup>&</sup>lt;sup>5</sup> Carl von Clausewitz, *On War*, Ed. and Trans. by Michael Howard & Peter Paret (New York: Knopf, 1993), 705. An extended quote may be useful: "War may have its own grammar, but not its own logic. The logic is determined by the political aim, and acts of war merely replace the usual exchange of diplomatic notes. If this were not so, war would be 'something pointless and devoid of sense'."

<sup>&</sup>lt;sup>6</sup> Antulio J. Echevarria II, Clausewitz and Contemporary War (New York: Oxford U.P., 2007), 57.

<sup>&</sup>lt;sup>7</sup> Colin S. Gray, *War, Peace and International Relations: An Introduction to Strategic History* (New York: Routledge, 2007), 36.

<sup>&</sup>lt;sup>8</sup> Colin S. Gray, Fighting Talk: Forty Maxims on War, Peace, and Strategy (Westport, CT; Praeger, 2007), 47.

<sup>&</sup>lt;sup>9</sup> Gray, Fighting Talk, 47.

<sup>&</sup>lt;sup>10</sup> Dolman, *Pure Strategy*, 1.

other more prosaic understandings of strategy. It is often equated to national interest, but even here someone such as Bernard Brodie comes along and observes, "We hear much glib talk about those interests, as if the speakers knew exactly what they are or ought to be. Yet they are not fixed by nature nor identifiable by any generally accepted standard of objective criteria."

The strategist is forced to approach strategy as a phenomenon arising from some mysterious, medieval balance of humors and vital spirits. There is very little in the way of a trustworthy anatomy of strategy. While it is unrealistic to suppose that this lack can be filled in a single attempt, it is hoped that some initial thoughts on strategy as an expression of more general human cognition may be a step toward a future strategic anatomy. Such a study would certainly aid the practitioner of strategy both in developing and evaluating strategy.

Possessing a conception of the cognitive process that results in strategy, one achieves at least three useful insights. First, it is possible to determine if a rival is operating in accordance with a strategy or simply executing tactical actions on the basis of expediency. This claim is based on the assumption that strategy has a distinct form that enables specific types of change; activity within a different form will not achieve these types of change and is thus not truly "strategy." Second, an anatomy of strategy offers a way to make broad evaluations of a competitor's truthfulness. If an actor's stated concerns are not addressed by his actions, then it is reasonable to assume he is not honest about or alternatively, unaware of, his actual strategy. Such a "truth test" sounds straightforward, but is in fact impossible without understanding the linkage between thought, word and deed; strategic anatomy provides this linkage.

Third, one can evaluate strategy for potential efficacy. By studying the narratives of strategic discourse, one can evaluate the logic of projected decisions and circumstances. Logical inconsistency significantly lowers the probability that a strategic actor will achieve and sustain a desired position of advantage.

<sup>&</sup>lt;sup>11</sup> Bernard Brodie, War & Politics (New York; MacMillan, 1973), 343.

#### The Claim and a Roadmap

The attempt to develop an anatomy of strategy begins with an essential assumption from which the thesis is derived. Circumstances are the fundamental building blocks of the human environment. It is the myriad of phenomena surrounding the subject or individual actor that are manipulated in order to effect change or transformation. Reality is the result of aggregate circumstances and their interactions; this result is then the propensity for change within any given situation. With this assumption one can make the following claim: Strategy is formulated as a form of narrative. The negative corollary is also true: Strategy without narrative is impossible.

This thesis leads to two major premises. First: Just as plot is the structure in fiction that links together the elements of the story, the logic of cause and effect links together circumstances within strategy. Second, a set of rules, or a grammar, guides the identification of relevant circumstances and the creation of logic specific to a given strategic situation. This grammar is not generative, like a standard linguistic grammar, but transformative in that it is a deep structure that reflects truths about human interactions generally. Application of this grammar enables the strategist to work in harmony with deeper aspects of human nature and cognition.

Strategy is thus a cognitive process that generates narratives using the rules governing human social interaction. The strategic narrative uses logic to identify relevant circumstances, integrate circumstances that emerge as relevant over time, and anticipate future circumstances evolving out of current conditions. Strategy seeks to orient the actions of multiple actors by creating a shared understanding of how to effect change and transformation. Its end is a position of advantage for the group, community or state. <sup>12</sup>

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<sup>&</sup>lt;sup>12</sup> Everett Dolman sees strategy as

<sup>...</sup>the link between policy and military action. It connects the conduct of war with the intent of politics. It is subtler than the tactical and operational arts of directly matching means to ends, however. It shapes and guides military means in anticipation of an array of possible coming events. In the process, strategy changes the context within which those events will happen. Thus

This theory unfolds in three major sections. The first section explores the way that narratives create meaning from the unknown or uncertain. It is sub-divided into three parts. The first part discusses how people translate the past in order to carry insights forward into the present and even project them into the future. The second part examines the role of art in the emergence of induction and deduction. Strategy is shown as a form of cognition that happens in the space between these two forms of thought. The third part explores the inevitability of narratives; either a narrative is received or one is forced to create one. Narrative is revealed as inescapable.

The second section refines many of the themes and ideas of the first in order to suggest how the strategist determines a path running from the past to some acceptable future. It is also sub-divided into three parts. The first part discusses what cognitive psychology teaches one about the nature of thought. Its conclusions about the mind's capacity to form associations lead to the second part, which argues that the ability to chart a path to the future is dependent on the tension that emerges from our perceptions of freedom and the reality of a deeper form of constraint. Finally, the third part looks at how cognitive freedom and constraint come together to make some circumstances relevant and others irrelevant. This process of differentiation from undifferentiation is fundamentally concerned with a balance between what

strategy, in its simplest form, is a plan for attaining continuing advantage. Dolman, Pure Strategy, 5-6.

A different perspective is offered by Hew Strachan:

Strategy is designed to make war useable by the state, so that it can, if need be, use force to fulfill its political objectives. One of the reasons we are unsure what war is is that we are unsure about what strategy is or is not. It is not policy; it is not politics; it is not diplomacy. It exists in relation to all three, but it does not replace them... The challenge for the United States—and for the United Kingdom—was, and is, the link between the policy of its administration and the operational designs of its armed forces." Hew Strachan, "The Lost Meaning of Strategy," *Survival*, vol. 47 no.3 Autumn 2005, 49, 52.

Dolman offers a view of strategy that begins to explain what actually happens when one "does" strategy; he looks at why strategy is even perceived as a discipline or mode of thought. Strachan attempts, like many others, to define strategy in terms of simple description or by what it is *not*. Neither of these approaches explain how or why strategy functions. Strachan's approach here has the further disadvantage of trying to tie strategy solely to military action; while this may have been the case at some earlier point in history, it seems that in the current context strategy has outgrown this narrow application.

is used and what is cast off. Too many decisions or too much information undermine strategy. This section lays the foundation for understanding how plot and logic function in the context of strategy.

The third section discusses the grammar that renders strategy as possible. Its first part lays the groundwork by explaining how these "meta-rules" function. The second part examines the ways in which such rules reflect the mechanics of rearranging circumstances to change the strategic context and attain a position of advantage. The third part discusses the mechanics of exploitation as an alternative to planning and projecting action and decision. The final part concludes that a grammar is necessary as an external, or higher order, system that can validate a strategy much as higher order axioms validate lower order forms of mathematics. This third section explores the nature and function of the "grammar of war."

#### **Strategy and Narrative**

Developing the anatomy of strategy begins by exploring the way narratives generate meaning from the unknown or uncertain. The transmission of strategic insight through translation of the past via historical texts on strategy opens the way to understanding the emergence of meaning. The past also reveals where and why the narrative form arose. The appearance of narrative was contingent on the cycle of cognitive destruction and creation already latent at the dawn of Western civilization and perhaps marked the transition to consciously inductive and deductive forms of thought. Continuing to examine the role of narrative in the West leads to the conclusion that narrative is inescapable; by studying how the discipline of history appropriates the use of the narrative, one sees how the same rationale applies to strategy.

#### **Translating the Past**

In the book *Fighting Talk: Forty Maxims on War, Peace, and Strategy*, Colin Gray argues that "If Thucydides, Sun-Tzu, and Clausewitz did not say it, it probably is not worth saying." Gray's contention is that very little of significance has been added to humanity's collective understanding of strategy that

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<sup>&</sup>lt;sup>13</sup> Gray, Fighting Talk, 58.

one of these three figures has not already said. In short, "there are no new ideas in strategy. Instead, there is a stock of concepts of great antiquity, whose exact provenance is unknown and unknowable." Gray's perspective frames the study of strategy as akin to reading a divinely inspired text. Such books are usually read as unchanging and complete—and thus strategy, as a practice guided by such a text, is also static. 15

There is a problem with Gray's contention as stated, and so one is compelled to ask what so careful a thinker might actually mean. Each of these three books was produced in another language, place, and time. Makers and consumers of strategy exist within an ocean of circumstances<sup>16</sup> that benefit or

<sup>14</sup> Ibid., 58

First of all the force of the wind when aroused beats on the harbours and whelms huge ships and scatters clouds... Then again we perceive the different smells of things yet never see them coming to our nostrils; nor do we behold heats nor can we observe cold with the eyes... Yet all these things must consist of a bodily nature since they are able to move the senses; for nothing but body can touch and be touched... And yet all things are not on all sides jammed together and kept in by body; there is also void in things... If there were not void, things could not move at all; for that which is the property of body, to let and hinder, would be present to all things at all times; nothing therefore could go on, since no other thing would be the first to give way. Epicurus, Epictetus, Lucretius, Marcus Aurelius, *The Stoic and Epicurean Philosophers*, "On the Nature of Things—*De Rerum Natura*," trans. H.A.J. Munro, ed Whitney J. Oates (New York: Random House, 1940), 74-75.

For Lucretius, anything that makes a sensory impression has "body" or is a circumstance. Note also that he finds the absence of things just as important as the existence of things—without the "void" there could be no meaningful perception of circumstances and change. Most significantly, he tells one that circumstances have distinct natures; they exist in an absolute sense. Necessity is derived from the nature of circumstance itself, not from the specific connections a more fluid understanding might perceive. Circumstances function like atoms—they are bits of a compound objective reality. The *Great Commentary* from the Chinese *Book of Changes* takes a very different approach, but one that is representative of much Chinese thinking about the nature of things:

Heaven is high, the earth is low; thus the Creative and the Receptive are determined. In correspondence with this difference between low and high, inferior and superior places are established.

Movement and rest have their definite laws; according to these, firm and yielding lines are differentiated.

<sup>&</sup>lt;sup>15</sup> In fact, Gray goes so far as to cast the strategist in the role of priest: "Those few scholars and practitioners who may justly wear the badge of strategist with pride are akin to a priesthood..." (*Fighting Talk*, 47)

<sup>&</sup>lt;sup>16</sup> The approach to strategy outlined here is dependent on an understanding of how meaning emerges from the interaction of things, sensory inputs, and judgments. Any or all of these may be circumstantial—*meaning*, once perceived, may be circumstantial. What, then, are circumstances? The Oxford English Dictionary defines "circumstance" as "That which stands around or surrounds; surroundings." The OED does not tell the reader what is surrounded; the important point is that circumstances are the frame around some other subject—they are distinct from that subject. The Roman Stoic Lucretius began his discussion of the nature of things by writing of those things that cannot be seen but still possess a tangible nature:

hinder their community's ability to survive on its own terms. Strategy confronts this reality by explaining why some circumstances are relevant to a given concern, and then how those circumstances enable a reconfiguration of the larger context to improve conditions within the community. The reconfiguration of circumstance is achieved by using one part of a larger system to influence another part of the same system. For now, this is only an assertion, but it follows that any strategic insight from ancient Greece, China or post-Napoleonic Prussia must reflect a pattern of circumstances different from later configurations. Gray admits this when he writes "every generation can, and indeed must, adapt and interpret the thoughts in the writings of Thucydides, Sun-Tzu, and Clausewitz, to meet contemporary needs." 17

Events follow definite trends, each according to its nature. Things are distinguished from one another in definite classes. In this way good fortune and misfortune come about. In the heavens phenomena take form; on earth shapes take form. In this way change and transformation become

manifest. Anonymous, *The I Ching or Book of* Changes, trans Richard Wilhelm and Cary F. Baynes (New York: Princeton U.P., 1978), 280.

For the sages compiling the Book of Changes, circumstances are facets of a larger pattern of meaning and change. Circumstances are not viewed as meaningful in their own right, but only in the context of a larger propensity towards unified transformation. Each moment has a unique character, expressed in a unique configuration of circumstances. Chinese philosophy holds that the course of change can be understood and harnessed by the "superior man." Thus circumstances become clues to conduct and action, morality and behavior—they delimit the possible. Meaning for Lucretius arises from one's understanding of things as discrete and self-contained. The interactions of things are purely mechanical—accidental if they occur by chance, purposeful if directed by a human hand. For the *I Ching*, meaning arises through differentiating changing states of being. Discerning tendency and propensity *is* meaning. One may argue that the tactician must develop a "Lucretian" perspective while the strategist must develop a more "*Taoist*" outlook.

At the tactical level the issue of deciding a victor is relatively straightforward. Tangible objectives such as relative casualties, physical control of territory, and public sentiment can be measured, and under these pre-established criteria, a victor assigned. At the strategic level, one quickly loses faith in such calculations. It is quite possible to win the battle and lose the war. It is moreover possible to win the war and lost the strategic advantage. Rather than control, the strategist must practice the disciplined improvisation of the Jazz musician. Dolman, *Pure Strategy*, 3.

Deepening his focus on strategy as a distinct activity, Everett Dolman comes very close to a Chinese perspective, using the language of modern physics to describe the activity of strategy:

Quantum mechanics tells us it is impossible to know precisely the future of any phenomenon, only the probabilities that lay ahead. The quantum vision sees humanity as a part of nature, an element in its journey that continuously interacts with and influences it, with or without intent. Any choice that we make changes nature forever, because it fixes the past. Dolman, *Pure Strategy*, 100-101

<sup>&</sup>lt;sup>17</sup> Gray, Fighting Talk, 60.

If strategy is a method for managing the uncertainty caused by the never-ending play of circumstances, and if Thucydides, Sun-Tzu and Clausewitz describe circumstances unique to their historical contexts, why should the body of strategic knowledge they represent remain both relevant and complete? This is the question that Gray fails to answer. A viable answer is available—and it provides insight into why narratives are essential components of strategy and how such strategic narratives offer a basis for action. In *The Emergence of Everything*, Harold J. Morowitz examines how the structure of the periodic table of elements is itself an emergence. He writes "but for the rules of quantum mechanics, the world of matter would be a sea of electrons and nuclei at the lowest energy level." Circumstances are to strategy what electrons and nuclei are to quantum mechanics. Strategy structures the sea of undifferentiated circumstances to change corporate human interaction in a purposeful way.

Describing strategy as precisely this kind of "structuring" activity, John Boyd wrote

To comprehend and cope with our environment we develop mental patterns or concepts of meaning... we destroy and create these patterns to permit us to both shape and be shaped by a changing environment... we cannot avoid this kind of activity if we intend to survive on our own terms.

The activity is dialectic in nature generating both disorder and order that emerges as a changing and expanding universe of mental concepts matched to a changing and expanding universe of observed reality.<sup>19</sup>

Consider how the necessary dynamism of Boyd's vision collides with Gray's belief in the totalizing authority of Sun-Tzu, Thucydides and Clausewitz. Reconciling Boyd and Gray begins by acknowledging that strategic decisions are not worked out on a flowchart and do not occupy a fixed point in some constellation of political/military effort. Pointing at an action, past or present, and triumphantly saying "strategy" does nothing to illuminate *why* something has happened within the ocean of circumstances.

One can, as Hayden White argues, "explain why and how every event in a sequence occurred and still not

<sup>&</sup>lt;sup>18</sup> Harold J. Morowitz, *The Emergence of Everything: How the World Became Complex* (New York: Oxford U.P., 2002) 65.

<sup>&</sup>lt;sup>19</sup> John Boyd, "Destruction and Creation" (Unpublished, 1976), 1.

have understood the meaning of the sequence considered as a whole."<sup>20</sup> Thus Thucydides may inform readers about events during the Armageddon of Classical Greece without telling them how Athens and Sparta harmonized purpose and action.

Understanding how and why the Greeks acted as they did requires an act of interpretation. The strategist observes both the current configuration of circumstances and the circumstances depicted in *The Peloponnesian War*. He must map the ancient configuration onto the new and evaluate the difference in the pattern. From this, he develops a logic explaining what the difference means for the formulation of strategy. Meaningful difference is the start of a useful strategic narrative. To identify the plot or logic, he must also derive useful propositions using the strategic rule-set embedded across the classic texts.

Although suggestive, the authors do not provide an explicit list of rules, and so determining what those rules are and how they are relevant is inherently creative. In this model the strategist stands at a complex intersection of fact, speculation, interpretation, analogy and metaphor.

The texts of Sun-Tzu, Thucydides and Clausewitz produce meaning along this tenuous no-man's land between model and metaphor. This is the same territory explored by Boyd—and it is bounded by continuous acts of cognitive destruction and creation. Learning a lesson from the condition arising from Athenian naval supremacy matched against Spartan land dominance requires an act of imagination. Hayden White continues to discuss the emergence of historical understanding: "To understand historical actions, then, is to 'grasp together,' as parts of wholes that are 'meaningful,' the intentions motivating actions, the actions themselves, and their consequences as reflected in social and cultural contexts."

This "grasping together" is based upon decisions about what is relevant—and as the strategist accumulates such decisions, a master plan, diagram or "plot" starts to guide the unfolding strategic narrative. This plot, projected into a future of *potential* decisions, interacts with new circumstances so that

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<sup>&</sup>lt;sup>20</sup> Hayden White, *Content of the Form: Narrative Discourse and Historical Representation* (Baltimore: John Hopkins U.P., 1987), 50.

<sup>&</sup>lt;sup>21</sup> White, Content of the Form, 50.

a causal logic emerges. From the sea of undifferentiated circumstances, the strategist confers relevance by linking some set of new circumstances to pre-existing ones through the identification of cause and effect relationships. The expanding web of decisions, logic and relevance reaches a critical mass, at which point the logic, fully emergent, constrains decisions so that some choices, while possible, are no longer thinkable. Such decisions become, in effect, invisible to the strategist. A fully realized narrative is the end result of this process—and like any story, it utilizes plot and logic to frame decisions. When this happens, a new context has formed around a position of relative advantage or the failure to achieve such a position.

One therefore advances by determining why "that" back then is different than "this" today. <sup>22</sup> This is done through metaphor and narrative. In order to highlight the degree of fit or difference between

For all experience and for the possibility of experience, understanding is indispensable, and the first step... is not to render the representation of objects clear, but to render the representation of an object in general, possible. It does this by applying the order of time to phenomena, and their existence... it assigns to each phenomenon... a place in relation to preceding phenomena, determined a priori in time, without which it cold not harmonize with time itself, which determines a place a priori to all its parts. This determination of place cannot be derived from the relation of phenomena to absolute time (for it is not an object of perception); but, on the contrary, phenomena must reciprocally determine the places in time of one another, and render these necessary in the order of time. Immanuel Kant, *Critique of Pure Reason*, trans. J.M.D. Meiklejohn (Buffalo: Prometheus Books, 1990), 133.

Kant posits that the representation of circumstances is based on possibility as revealed by understanding. Such representations are a function of temporal relationships between objects rather than a single object in relation to time itself. From this, it is the separate and distinct circumstances themselves that determine how they are linked. An alternative perspective is advanced in a 17<sup>th</sup> century Japanese treatise on swordsmanship:

Generally speaking, the person who has gained proficiency in an art is constantly employing his mind. Thus, he should be quite clear on the principles of that art. But if his determination is aimed at his own art alone, he becomes a specialist and it will be difficult for him to enter the Way... Even if such a man hears about deep principles, he takes them all as pertaining to his art and is unable to apply them broadly. So how will this help him in the art of the mind? If the man who is disciplining himself in an art grasps the fact himself, the art that he practices daily will assist his mind, and his mind's fundamental mysterious function will become manifest. In this way, his art too will gain freedom of action. Issai Chozanshi, *The Demon's Sermon on the Martial Arts*, trans William Scott Wilson (Ottowa: Kodansha America, 2006), 120-121.

Placing circumstances in isolated contexts is, paradoxically, to abandon useful context altogether. Compartmentalized knowledge becomes an obstacle to progress. For Chozanshi's demons, freedom of action comes

<sup>&</sup>lt;sup>22</sup> Nassim Taleb has written that "regular minds find similarity in stories (and situations); finer minds detect differences." Nassim Nicholas Taleb, *The Bed of Procrustes: Philosophical and Practical Aphorisms* (New York: Random House, 2010), 52. Progress toward useful understanding is dependent upon perceiving difference. The origins of differentiation, of "separateness" and "boundary," are thus worth exploring. In terms of thought, taken generally, Immanuel Kant describes "difference" as arising from temporal relationships that are the ground of experience and are at least partially relative:

conditions 2500 years ago and circumstances today, a metaphor has to function like a grammatical rule within a system of logic articulated through a narrative structure. In other words, the interpretation of circumstance that drives the unfolding of strategy must hold for as long as the relevant pattern of circumstances persists. At the same time, because the narrative is intended to drive purposeful change, the *pattern* must change and, therefore, the narrative and the rules for generating valid plots within the narrative must change as a strategy progresses.

In a sense, the changed context and its emergent position of advantage mark the closure, or end, of the narrative. In another sense, strategic narrative only ends with the fall of the community creating the narrative. Circumstances remain, change remains, and rivals must continue seeking their own advantage. The strategist "though he may aspire... to live in conditions of reality unprotected by myth, has to allow room for different versions of reality, including what some call mythical and some call absolute... there is an irreducible minimum of geometry—of humanly needed shape or structure—which finally limits our ability to accept the mimesis of pure contingency." People require a purpose or guiding logic even as they acknowledge random, mechanical causation. Everett Dolman frames this compromise between purpose and chance, closure and open-endedness as the fundamental difference between strategy and tactics: "The outcomes of battles and campaigns are critical variables within the strategist's plan, but victory is a concept that has no meaning there; it belongs wholly within the realm of tactics."

from the ability to *create* difference necessarily *following* the knowledge of interconnectedness. Kant sees difference arising from objects "themselves;" Chozanshi sees meaning, arising from difference, as a product of human desire and creativity.

Nietzsche approaches Chozanshi when he sees the birth of tragedy in the synthesis of undifferentiated multiplicity and disciplined individuality: "Thus the Dionysiac element, as against the Apollonian, proves itself to be the eternal and original power of art, since it calls into being the entire world of phenomena. Yet in the midst of that world, a new transfiguring light is needed to catch and hold in life the stream of individual forms." Friedrich Nietzsche, *The Birth of Tragedy & the Genealogy of Morals*, trans Francis Golffing (New York: Doubleday, 1956), 145. The "new transfiguring light" is that of the individual mind, operating through disciplined vision. Note that for Nietzsche, the predicate, not the subject, "calls into being the entire world of phenomena."

<sup>&</sup>lt;sup>23</sup> Frank Kermode, *The Sense of an Ending: Studies in the Theory of Fiction* (New York: Oxford U.P., 1967), 132.

<sup>&</sup>lt;sup>24</sup> Dolman, *Pure Strategy*, 5.

Within the context of a given interpretation, narrative reveals a range of meanings that are, in their own right, consistent throughout the set of relevant circumstances. Consistency points to purpose, and "the purpose of strategy, to put oneself in a position of continuing advantage, is the same regardless of the endeavor or the opponent." Moving to advantage is reason for making strategic decisions and the source of strategic continuity.

Mapping this fault line between continuity and discontinuity, in and of itself, demonstrates why Sun-Tzu, Thucydides and Clausewitz constitute a strategic canon. This sort of cartography is inherently creative, and the continuing relevance of *The Art of War, The Peloponnesian War* and *On War* owes at least as much to the creative potential of these texts as it does to the power of the writers themselves. Indeed, their greatness may well rest on the density and richness of the potentially new interpretations and understandings that they seem to nurture. Separately and together, they inspire generations of leaders, thinkers and scholars. While the rules a reader finds on their pages may not be complete, history supports the validity of the set as recorded by the classic texts. These narratives engage many realities; they generate meanings rather than prescriptions denying interpretation or evolution.

It is worth repeating Boyd here: "The activity is dialectic in nature generating both disorder and order that emerges as a changing and expanding universe of mental concepts matched to a changing and expanding universe of observed reality." The activity Boyd is discussing is the essence of strategy. It is a process, using rules to combine circumstances in evolving ways to reflect an equally changeable sea of circumstances. The purpose of this destructive/creative cycle is to more fully comprehend the environment in order to survive on one's own terms. In this context, Gray's master texts are wellsprings of dialectical energy.

This cyclic building and demolishing of circumstantial structures out of recycled historical theoretical flotsam and the perception of the strategist, is essential to developing a shared understanding. It also requires a constant balancing of adaptation and optimization with evolutionary change over time

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<sup>&</sup>lt;sup>25</sup> Dolman, *Pure Strategy*, 26.

due to external forces. Shimon Naveh wrote of the difficulty states have with this pulse of destruction and creation when confronting asymmetric conflicts: "Another tension concerns the distinction between ontological dimensions characterizing inter state wars and those concerning asymmetric conflicts, on the one hand, and the specification of the epistemic logical frameworks which are supposed to structure the coherent functioning of military institutions in these two strategic categories." Naveh suggests that states struggle to harmonize questions of what differentiates one form of warfare from another with the ways in which military institutions organize themselves to fight. Obviously, if a state is to effectively maintain a position of advantage, its methodologies, assumptions and beliefs concerning competition must account for the nature of the conflict in which it finds itself. To paraphrase Sean Connery in *The Untouchables*, it is never good tactics to bring a knife to a gunfight.

Naveh's larger point is that without some more or less compelling vision of a particular form of war—such as asymmetric warfare—a state will find itself hard-pressed to even understand if such a form of war might exist or if it is currently *in* such a fight. And this, of course, leads to states employing ineffective means and often generating a worse set of circumstances than those with which they entered battle. Naveh seems to caution Boyd that states are not particularly adept at manipulating conceptual frameworks—for a strategist within a state system, the crafting of narratives is hard and problematic. The creative reading of the classics can provide a source of metaphor by which strategists can identify precisely the sort of military inflection point described by Naveh. This increases the strategist's ability to negotiate the path from destruction to creation advocated by Boyd. Following Boyd's path, in turn, leads to adaptive strategic practice and the freedom to live on one's own terms.

One is hopefully now in a better position to gauge what Gray might mean when he says strategy has not changed much since Clausewitz wrote *On War*. Human corporate activity occurs within a sea of circumstances. Strategy places a line around some of these circumstances, declaring them to be relevant

<sup>&</sup>lt;sup>26</sup> Shimon Naveh, "Asymmetric Conflict: An Operational Reflection of Hegemonic Strategies" (Unpublished manuscript, 2002), 5.

to the current concern, whatever that happens to be at the moment. Using the causal logic of narrative plot, strategists link circumstances together in such a way that a series of decisions projected into the future cause a series of changes leading to one out of a set of possible acceptable futures. Continuity in the midst of circumstance is the essence of narrative.

#### **Undifferentiated and Differentiated**

To suggest that circumstances without strategy are an undifferentiated swarm of facts, sensory impressions, physical contacts and causal relations moving randomly, like dust in a beam of light, is not to suggest stillness. Circumstances may be undifferentiated yet dynamic—the observer does not know what new configurations will spontaneously arise. The differentiation of circumstances begins when strategy introduces purpose, which aligns circumstances in order to bring about a desired condition.

The process of differentiating circumstances occurs precisely because the sea of circumstances appears undifferentiated. At such moments the observer often experiences a sense of strangeness. The uncertainty and chaos that accompany the lack of purpose generate anxiety. Rearranging circumstances so that a feeling of familiarity emerges from the imposed purpose diminishes anxiety because the observed circumstances come to *mean* something. The sense of anxiety is a way of cueing the observer to begin the process of making sense of circumstances.

Decisions that increase the *sense* of familiarity increase confidence. When confronted with a new or unfamiliar situation, people default to viewing it as dangerous or hostile. Conversely, when facing the familiar, they often see the situation as benign.

Daniel Kahneman sums it up this way: "Predictable illusions inevitably occur if a judgment is based on an impression of cognitive ease or strain. Anything that makes it easier for the associative machine to run smoothly will also bias beliefs." Note that Kahneman is speaking of an "impression" of something being familiar or alien. The influence of such impressions is strong enough that it bends one's

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<sup>&</sup>lt;sup>27</sup> Daniel Kahneman, *Thinking, Fast and Slow* (New York: FSG, 2011), 62.

perceptions. Those elements of the environment that are familiar tend to reinforce a person's confidence and strengthen their sense of control. The power of the individual is enhanced by routine, repetition and experience. The unexpected diminishes one's sense of control and lowers confidence—increasing the power of the environment over the individual.

Strategy rearranges circumstances in two distinct ways. The first way is according to a predetermined sequence, like a chess piece. Chess pieces represent inherent capabilities that a player uses to create specific future configurations of the chessboard. Thus, a knight moves in a programmed pattern of squares. The second way exploits circumstances, like *go* stones. A *go* stone is without identity or any inherent capability; it embodies no unique functional logic. In *go*, the Brownian motion of circumstances encodes the power or capability of a given stone in a unique way that is derived from a given place and time. This is why "all by itself, a *go* piece can destroy an entire constellation synchronically; a chess piece cannot (or can do so diachronically only)."<sup>28</sup>

In either approach, strategic decisions effect the desired configuration of circumstances by either initiating a planned sequence of actions or by exploiting unplanned events. Planned actions amount to a calculation of probability that strives to predict which actions bring about the desired configuration of circumstances. Exploitation requires one to anticipate the general possibility of a likely emergence so that it is feasible to profit from the event *if* it occurs; this is the recognition that "chance favors only the prepared mind."<sup>29</sup> In either case, causal logic differentiates random circumstances by imparting direction and intensity to environmental interactions. When such combinations of logic and intention produce circumstances differentiated by relevance, they represent the essence of strategy within a narrative form.

Planning attempts to use a guided sequence of smaller actions to cause a holistic transformation of the strategic system. Exploitation is possible only with a holistic appreciation of the system, and from

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<sup>&</sup>lt;sup>28</sup> Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 353.

<sup>&</sup>lt;sup>29</sup> Attributed to Louis Pasteur.

this appreciation develops a sense of the system's propensity as reflected in a given set of circumstances.

Because both forms of strategic manipulation depend on linking logic to circumstances based on a rationale for action, or plot, narrative is indispensible to strategy.

Planning and exploitation reflect still deeper aspects of cognition. Planning, dependent on probability and experience to identify likely patterns of cause and effect, is essentially inductive. Exploitation is fundamentally different. It develops a system of propositions based on the systemic logic of a given configuration of circumstances. If the strategist correctly understands the system and his propositions are valid, then the strategist has a chance of posturing his community to profit from emergence. For this reason, exploitation is essentially deductive. Planning proceeds from parts to wholes; exploitation moves from wholes to parts.

In *The Birth of Tragedy*, Friedrich Nietzsche details how the form of artistic expression itself amplifies humankind's perception of reality and, by extension, sets the stage for the emergence of conscious induction and deduction. Nietzsche saw Greek art and culture existing on the boundary dividing primordial abandonment to the forces of nature from disciplined cultivation of logic and reason. He termed the undifferentiated forces of nature "Dionysian," and the differentiated rational mind "Apollonian." Speaking of them, he writes, "The two great antagonists have been reconciled. Each feels obliged henceforth to keep to his bounds; each will honor the other by the bestowal of periodic gifts, while the cleavage remains fundamentally the same." <sup>30</sup>

Art, including narrative, thus emerges within a polarized field of creative tension. Nietzsche describes the Dionysian as an experience of "oneness," or the loss of the self to a deeper, primordial and collective reality. As art, it expresses abandonment, music, dance, and the reality of the world as a tangled web of circumstance. It is felt and experienced, not seen or thought.

Opposed to this are the Apollonian arts of painting, sculpture and meter. This mode is visual, individual, restrained and illusory. The Apollonian artist sees himself as separate from the wilderness of

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<sup>&</sup>lt;sup>30</sup> Friedrich Nietzsche, *The Birth of Tragedy*, trans. Francis Golffing (New York: Doubleday, 1956), 26.

nature. Because the imposition of order *appears* to be external, emerging necessarily but independently of the observer, illusion is inevitable when this mode of thought organizes reality.

Nietzsche's Greeks cannot escape the play of circumstances, whether experienced as undifferentiated ecstasy or differentiated logic. His conclusion is that only through the narrative mode of tragedy is this conflict resolved. If one considers Nietzsche's explanation, one realizes that the birth of Western culture is emergent; it rises from the interaction of distinct modes of perception but in a way that could never be predicted beforehand.

In the first mode, circumstances are an undifferentiated multiplicity of chaotic phenomena that paradoxically remain a unified whole because no individual mind holds itself above the rest. In the second, circumstances are differentiated, discrete and purposeful entities. It is significant that differentiation is ultimately illusory, serving to orient circumstances for a brief duration before dissolving back into the environment. For Nietzsche, the world of human purpose has the quality of a dream. Things emerge, shatter and collapse so that other things may emerge. This ebb and flow echoes John Boyd's "Destruction and Creation."

With such a perspective, it is unsurprising that the oldest narrative history comes from Greece. It is also unsurprising that Thucydides wrote a history teaching strategy just a little later. It is only through the imposition of purpose that circumstances achieve meaning on a human scale. Only through strategy can communities arrange circumstances so that one community grows stronger as another grows weaker. But for this narrative process to function, there also has to be an awareness that differentiated circumstances are not the natural state of things.

Erich Auerbach expands this primordial tension between the random, Brownian interaction of things and the construction of order and purpose. He compares a scene from Homer's *Odyssey* with the Biblical story of Abraham and Isaac. This comparison develops the contrast between the wholly self-

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<sup>&</sup>lt;sup>31</sup> "We can learn something about that naïve artist through the analogy of dream. We can imagine the dreamer as he calls out to himself, still caught in the illusion of his dream and without disturbing it, 'This is a dream, and I want to go on dreaming..." Nietzsche, *Birth of Tragedy*, 32.

contained, temporally "present," and structurally complete style of the Greek epic with the constantly resonating Old Testament text, in which the past always threatens to overwhelm the present and the motives and internal states of the various actors are murky at best:

The two styles, in their opposition, represent basic types: on the one hand fully externalized description, uniform illumination, uninterrupted connection, free expression, all events in the foreground, displaying unmistakable meanings, few elements of historical development and of psychological perspective; on the other hand, certain parts brought into high relief, others left obscure, abruptness, suggestive influence of the unexpressed, 'background' quality, multiplicity of meanings and the need for interpretation, universal-historical claims, development of the concept of the historically becoming, and preoccupation with the problematic.<sup>32</sup>

Auerbach explores the evolution of literary representations of reality in Western culture; Nietzsche seeks the tension between nature and culture. The poles between which both critics string human perceptions of reality are similar. Further, both are concerned with how human experience is packaged and shared toward the achievement of some purpose.

Nietzsche and Auerbach differ in their treatment of how the arts, including narrative, confront reality. Nietzsche simply observes that the human sense of individuality, of the singular mind, is built on illusions that replace Brownian randomness with purpose. Auerbach's examples, and the use he makes of them, demonstrate that regardless of how one bounds circumstance, the underlying sea of un-bound circumstances continues to exert influence. It is thus impossible to craft effective strategy without constantly looking for, and integrating, new circumstances. Two things follow from this: First, strategic cognition must bounce back and forth between managing the familiar and finding the newly relevant but unfamiliar. Second, a narrative is judged, in part, on the grace with which it introduces and integrates new plot elements; strategy can be no different.

If one adopts the Homeric approach to narrative, the reality of undifferentiated things appears in the form of strange creatures, magic, and irrational compulsions. The *Odyssey* can tolerate no obscurity or

<sup>&</sup>lt;sup>32</sup> Erich Auerbach, *Mimesis: The Representation of Reality in Western Literature*, trans. Willard R. Trask (Princeton: Princeton U.P., 1953), 23.

<sup>&</sup>lt;sup>33</sup> This recalls the cycle of destruction and creation advocated by Boyd...

ambiguity, and thus explanations must be manufactured from fantasy where gaps in differentiated circumstance threaten to disrupt the story. Because Homeric circumstance is seamless and complete, it suggests the inductive vision of reality. The world that emerges from Homer must be the sum of its parts—and this explains its unbroken completeness.

If one adopts the Biblical approach, reality functions as one might expect, but the undifferentiated world peeks through gaps in knowledge, narrative omissions, or simple ambiguity. It is more important for the author of Exodus to experience the play of circumstance as a system—as a whole, even a poorly understood whole—than it is to build an image whose very completeness may render it irrelevant. For this reason, the story of Abraham and Isaac suggests a sort of proto-deduction. The Biblical worldview is based on logical connections among circumstances—held within an unrestrained frame of suggestions, absence and ambiguity.

In either case, narrative seeks to provide purpose and coherence—but emergent dislocations of reality— cognitive, physical or both— constantly threaten this order. While narratives offer a way to confront the random play of circumstances, Nietzsche and Auerbach show how the form of narrative influences the pattern of order that emerges. Human beings tried to find purpose and meaning within the play of circumstances long before they devised either history or strategy. It is in narrative art that one finds the oldest record of this attempt.

#### **Inevitability and Authority**

In using classic texts to develop or understand current strategy, the strategist must construct a narrative. In the strategist's confrontation with the sea of circumstances, the narrative form is equally necessary. In both cases, a community's survival depends on its ability to confront undifferentiated chaos, create order from the emergence of relevance, and thus influence the range of possible futures. Nietzsche and Auerbach deal with fictional representations of reality. Accordingly, their representative artists work with a *virtual* sea of circumstances. The confrontation with things as they are, the actual circumstances of human existence, plays out in a similar manner when captured in non-fictional depictions of reality such

as history or strategy. Without narrative, one can depict the sea of undifferentiated circumstances, but no order, purpose or cohesion necessarily emerges. A faithful depiction of chaos is still chaos.

Imagining a hypothetical set of strategic circumstances unbound by narrative clearly demonstrates this truth. Such circumstances display no necessary causal linkage. Any explanatory meaning that emerges is fictional in the sense that the viewer imposes some interpretation on the circumstances. Explanation, in this case, is external and does not emerge from the circumstances themselves.

Without a pre-existing narrative frame or logic, meaning is always, to some degree, the result of virtual causality as an artifact of human cognition, and in this sense echoes Nietzsche's "Apollonian" mode. Generating meaning always involves illusion in the sense that Nietzsche used the term to illustrate a form of contingent truth. Such truth, or meaning, is a reflection of transient patterns within a configuration of circumstance. Textual artifacts composed of undifferentiated but real or actual circumstances record an environment but offer no causal explanation; any resulting narrative therefore emerges from the mind of the beholder rather than the author's intent or the text itself. This subsequent narrative must be regarded as fiction unless the subsequent creator has access to a "decoder ring" revealing the criteria by which a given circumstance was originally selected for inclusion. While the original author of such texts presumably used specific criteria to capture the particular circumstances in one way and not another, texts of this sort offer no hint of such logic to a later reader.

It should be noted that this virtual causality is fundamentally different from physical causality of the sort that governs the movement of a billiard ball on a pool table. The causality inherent in the ball's trajectory carries no inherent meaning and requires no interpretation—it is, rather, a summation of force vectors. Narrative causation is that form of cause and effect one might use to explain why one action was taken and not another.

Hayden White investigates this situation in *The Content of the Form*, where he explains why the form of a text is more than a vessel for information. He demonstrates that the form *is* the author's understanding. Although dealing with non-fiction, White's concern with the emergence of meaning from

the chaos of undifferentiated circumstances places him within the discourse of Nietzsche and Auerbach.

In discussing the *Annals of Saint Gall*, White says:

In what are, for us, the theoretically most interesting segments of the text, there is no suggestion of any necessary connection between one event and another... All of the events are extreme, and the implicit criterion for selecting them for remembrance is their liminal nature... the connection between basic needs and the conditions for their possible satisfaction is not explicitly commented on.<sup>34</sup>

In this primitive form, the capacity to forge meaning linking past events with future possibilities remains latent. While the inheritors of such a list may invent a causal logic, there is no way to know if the new logic matches the old—and if it does not, then the narrative must be fictional, and thus a betrayal of the original text's approach toward the real. Such a fictional text is a heresy encouraging different sorts of action, leading to another set of decisions and, ultimately, a future different from the one intended by the original author. One should note that, in this case, bearing the status of fiction says nothing about the *truth* of such a narrative.

This situation may lead one to the conclusion that any differentiated set of circumstances is virtual and that all strategies are at best only approximations of the real. They are, to some corresponding extent, fictions. One may draw two further conclusions from this observation. First, effective strategy cannot reliably aim at a single, optimal future configuration of circumstances because any attempt to differentiate circumstances is always incomplete and somewhat provisional. Second, one cannot craft

<sup>35</sup> This sounds like a very post-modern conclusion, and in fact it is in many respects. At the same time, the discipline of strategy has often had a post-modern sensibility even without a post-modern discourse. B. H. Liddell-Hart wrote of strategy and prediction that

The more localized the situation, and our study, the more disconcerting and less calculable is such a difference of degree. It may prevent any exact calculation of the resistance which men will offer in any situation, but it does not impair the judgment that they will offer less if taken by surprise than if they are on the alert; less if they are weary and hungry than if they are fresh and well fed. The broader the psychological survey the better foundation it affords for deductions. Liddell-Hart, *Strategy*, 10.

Liddell-Hart suggests that human performance is unpredictable at the level of the individual, but that statistical models make possible prediction by approximating performance using statistical techniques. On reflection, this is much closer to classical mechanics that to post-modernism or complexity theory. Approximating or regularizing reality as a way to manage complexity appears in many forms and disciplines:

<sup>&</sup>lt;sup>34</sup> White. *Content of the Form*, 7.

strategy without making use of the narrative form—to do so is to frame a set of circumstances begging further interpretation that ultimately leads to narrative in spite of the strategist's best efforts.

White tells the reader that in more primitive textual forms, recorded events are liminal; they are barely perceived or serve only as a threshold to something else. Increasing the intensity of perception or explaining the threshold propensity requires the author to conceive of circumstances within a different form. The logic of inclusion must be clear—the reader, within a literary or strategic context, must be told why some circumstances matter more than others. The ways in which circumstances connect one to the other must be explained. This requires causal logic, dependent on the narrative form.

Narrative history is fundamentally different from more primitive forms. Texts such the *Annals of Saint Gall* are only a list of events possessing no causal logic. Circumstances in such a catalogue remain undifferentiated. Narrative is the vehicle of differentiation. It views its chosen present as a singularity that brings a particular past and a particular future into being by connecting circumstances in a particular way.

John Lewis Gaddis recognized this aspect of time and meaning: "I prefer to think of the present as a singularity—or a funnel, if you prefer a more mundane metaphor, or a wormhole, if you favor a more

Perturbation theory is an elaborate name for making an approximation to try to give a rough answer to a question, and then systematically improving this approximation by paying closer attention to fine details initially ignored. Brian Greene, *The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory* (New York: Vintage Books, 2003), 288-289.

Greene goes on to explain how scientists begin by approximating the gravitational influence of the Sun on the Earth, excluding all other influences. They then begin to add in other influences one at a time until the requisite precision is reached. Subsequent refinements are similar to increasing the size of the statistical sample in that both approaches rely on knowledge of stable laws, such as Newton's Laws of Motion or Regression Toward the Mean, in order to allow one to understand complex or hidden relationships. Any classical approach to the problem of human decision-making must rely on some form of approximation based on stable rules. The counter to this is that human beings are not predictable based on stable rules.

In Extremistan, inequalities are such that one single observation can disproportionately impact the aggregate, or the total.

So while weight, height, and calorie consumption are from Mediocristan, wealth is not. Almost all social matters are from Extremistan. Another way to say it is that social quantities are informational, not physical: you cannot touch them. Nassim Nicholas Taleb, *The Black Swan: The Impact of the Highly Improbable* (New York: Random House, 2010), 59.

exotic one—through which the future has got to pass in order to become the past."<sup>36</sup> The past and future are brought together in the crucible of the present to forge the undifferentiated flood of circumstances into a singular flow. It is thus the nature of any differentiation of circumstance that it alert one to the possibility that a different reality could exist, that something other than what did emerge *might have* emerged.<sup>37</sup>

Experiments have shown that six-month-old infants see the sequence of events as a cause-effect scenario, and they indicate surprise when the sequence is altered. We are evidently ready from birth to have *impressions* of causality, which do not depend on reasoning about patterns of causation... The perception of intention and emotion is irresistible; only people afflicted by autism do not experience it. All this is entirely in your mind, of course. Your mind is ready and even eager to identify agents, assign them personality traits and specific intentions, and view their actions as expressing individual propensities. Kahneman, *Thinking*, *Fast and Slow*, 76

Strategists' sense of causation is not as firm as historians' because they manipulate time in reverse. Many different actors simultaneously try to bring about a particular vision of the *future* from a particular *past* even as the set of relevant circumstances continuously changes. Because strategy seeks to affect the future, there is the possibility of catastrophic error in how one scripts the nature of changing circumstances:

Groups may do disastrous things because they failed to anticipate a problem before it arrived, for any of several reasons. One is that they may have had no prior experience of such problems, and so may not have been sensitized to the possibility... Even prior experience is not a guarantee that a society will anticipate a problem, if the experience happened so long ago as to have been forgotten... Another reason why a society may fail to anticipate a problem involves reasoning by false analogy. When we are in an unfamiliar situation, we fall back on drawing analogies with old familiar situations [Naveh comments on this trap in the earlier quote on Asymmetric Conflict]. Jared Diamond, *Collapse: How Societies Choose to Fail or Succeed* (New York: Penguin Books, 2005), 421, 422, 423.

In this passage, Jared Diamond describes strategic blunders. The societies he references fail to understand the circumstances from their past that are actually shaping the future. The singularity of the present does not match things as they are. Thus, the future they presumably believe they are moving toward is an illusion. If the present is a singularity, it is one that is capable of linking incompatible circumstances—thus warping a strategist's perception of reality and hindering his ability to define a set of acceptable futures.

Both Gaddis and Diamond describe causation, perception and time as a relationship with a necessary and sufficient structure. It follows that reality as they describe it is the addition of multiple discreet circumstances, the sum of which equal a present that is objectively inevitable based on some set of initial conditions. The German philosopher Martin Heidegger strives for a different vision of causation, perception and time in which identity emerges from relation and dissolves when the relation ceases:

The bridge swings over the stream "with ease and power." It does not just connect banks that are already there. The banks emerge as banks only as the bridge crosses the stream. The bridge expressly causes them to lie across from each other. One side is set off against the other by the

<sup>&</sup>lt;sup>36</sup> John Lewis Gaddis. *The Landscape of History: How Historians Map the* Past (New York: Oxford U.P., 2002), 30.

<sup>&</sup>lt;sup>37</sup> Gaddis writes of history, but his notion of time as the ultimate form of causation has a more general application. Strategists, as long as they are human, have no choice but to assume that their decisions create intended changes or transformations. Gaddis, with his metaphor of singularity, offers an explanation of how this happens. Daniel Kahneman says of the perception of causality in general that

Through narratives, humanity imposes cause and effect on time so that a coherent past and future emerge from undifferentiated circumstance. If a strategist or a historian rearranges either the specific set of circumstances or his understanding of the present, he necessarily changes the larger reality. History, Gaddis points out to us, does not operate as a material process governed by physical law, but is a kind of alchemy in which human imagination traces a path from its current *being* to a future *becoming*. The same is true of strategy.

This is the reason why lists, or the facts alone, provide Hayden White only the most tenuous of meaningful connections. "The meaning of the events is their registration in this kind of list," and nothing more. <sup>38</sup> At the same time, narrative construction is not simply a matter of choice—there are preconditions for its emergence. White wrote "the reality that lends itself to narrative representation is the conflict between desire and the law. Where there is no rule of law, there can be neither a subject nor the kind of event that lends itself to narrative representation." Out of the total, and largely unknowable, circumstances of any given moment, narratives identify plots and connect them to actors through reference to a set of "rational laws and customs." Laws and customs together make for an "imperfect present" that only makes sense in reference to the particular "present's" own origin and history. <sup>39</sup>

The possibility of satisfaction is history's contribution to narrative. Without reference to history, the logic of the present is unavailable to the community. The present is imperfect because it never

bridge. Nor do the banks stretch along the stream as indifferent border strips of the dry land. With the banks, the bridge brings to the stream the one and the other expanse of the landscape lying behind them. It brings stream and bank and land into each other's neighborhood. The bridge *gathers* the earth as landscape around the stream. Martin Heidegger, *Basic Writings*, ed. David Farrell Krell (New York: Harper, 1993), 354.

Heidegger's example is more than a metaphor for holistic thinking. It may be a metaphor for a deeper understanding of the time-causation relation envisioned by Gaddis. The past and the future exist as such *only* because they are linked by a present constructed on the basis of a narrative. No history, and no vision of the future, can ever capture all the extant circumstances in play. Thus, it is the structure of the "singularity" that defines the flow of time in a way that is comprehensible to human senses and human cognition, built upon a finite sub-set of all the circumstances physically at play within the environment.

<sup>&</sup>lt;sup>38</sup> White, Content of the Form, 9.

<sup>&</sup>lt;sup>39</sup> Ibid., 12.

satisfies the community's desire, which remains always just out of reach. Desire is the individual or group experience of some tangible absence; it is the conscious realization of something good or necessary that is missing. Laws and customs form a social or political center governing causal logic. Law and custom are deployed in response to the community's desire. Law is the expression of the social or political center's duration over time as it tries becoming what it set out to be. Any legitimate authority seeks to establish a vision of reality that is, in some way, unnatural; because of this, the very act of enforcing the law, or political authority generally, points to its temporary failure.<sup>40</sup>

In this sense, desire can be satisfied but authority cannot. It is the political authority's inability to provide ultimate satisfaction within social, temporal and spatial contexts that leads to the emergence of narrative. The source of law or political authority, as the authorized past, must be understood in order to

<sup>40</sup> It is unnatural in that the social center opposes corporate authority to individual desire. It is a failure to the extent that it never satisfies the desire that brought it into being. The opposition and the failure are together experienced as both a will to overturn the social center and to renew it in order to continue the quest for final fulfillment:

Text of pleasure: the text that contents, fills, grants euphoria: the text that comes from culture and does not break with it, is linked to a *comfortable* practice of reading. Text of bliss: the text that imposes a state of loss, the text that discomforts... unsettles the reader's historical, cultural, psychological assumptions... the subject who keeps the two texts in his field and in his hands the reins of pleasure and bliss is an anachronic subject, for he simultaneously and contradictorily participates in the profound hedonism of all culture... and in the destruction of that culture: he enjoys the consistency of his selfhood... and seeks its loss." Roland Barthes, *The Pleasure of the Text*, Trans. Richard Miller (New York: Noonday Press, 1990), 14.

Narrative thus carries the past forward as a source of logic, justification or continuity that lends meaning to the present such that the future becomes something that can be formed or achieved. At the same time, narrative provides the means to challenge or overturn authority, to become something other than what the community *is.* Thus, desire and law both reflect past effects and are sources of future cause. John Gaddis writes of historical causation that

A sufficient cause is still dependent upon necessary causes: that's why a misstep on a mountain path is more dangerous than one that takes place in the middle of a meadow. It would make no... sense to discuss either of these missteps without specifying where they occurred... For while context does not directly *cause* what happens, it can certainly determine consequences.

Gaddis continues to develop this idea by linking it to chaos theory and sensitivity to initial conditions:

How, though, do we know a moment of sensitive dependence—or of exceptional causation—when we come across one... it's done by looking for phase transitions, those points of criticality at which stability becomes unstable: where water begins to boil or freeze... or sand piles begin to slide, or fault lines begin to fracture. Gaddis, *Landscape of History*, 96-98.

Gaddis's use of phase transitions links his notion of causality to Barthe's participation-destruction tension and White's use of desire and law. All of these perspectives suggest how dissatisfaction with the present is explained by the past, even as the past inspires renewed attempts to create a satisfactory future "present." Strategy begins at the point where the present is seen as lacking, and is the attempt to rectify such lack.

bring forth a set of acceptable futures that are grasped only to generate a further set of acceptable futures.

This ongoing process requires a form, such as narrative, that stitches a logical suture between the past, the present, and a desired, but always out of reach, ultimate future.

If a government of laws is necessary for narrative history, it stands to reason that some similar such "social center" is equally necessary for strategy. Strategy is the propensity of a state's being and becoming; it is the use of history to reveal plausible alternatives leading to the set of acceptable futures. In a way not empirical or falsifiable, strategy is the form and context of Gaddis's singularity-event run in reverse; it is a rationale for decisions that exploit past circumstances to progressively push current circumstances toward a desired configuration and simultaneously away from undesired futures.

White writes "far from being one code among many that a culture may utilize for endowing experience with meaning, narrative is a meta-code, a human universal on the basis of which transcultural messages about the nature of a shared reality can be transmitted." Any time strategists confront the undifferentiated sea of circumstances they are likely to experience an urge to tame chaos. Narrative imposes causality on known events from the past to explain why the present emerges as it does. Such constructed meaning in turn allows a similar process to imagine the shape of desired future circumstances. If strategy is, to paraphrase Colin Gray, the use of force or its threat for the purpose of policy, strategy must change perceptions of circumstance in order to bring about the desired policy. In this sense, strategy mirrors history, as both reflect a political center from which the narrative form emerges to mediate human desire and the uncertainty of raw circumstances.

#### The Uncarved Block

The continued relevance of *The Peloponnesian War, The Art of War*, and *On War* rests on an ongoing, creative act of interpretive imagination. This fact alone shows one that while these texts are

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<sup>&</sup>lt;sup>41</sup> White, Content of the Form, 1.

<sup>&</sup>lt;sup>42</sup> Gray, War, Peace and International Relations, 16.

authoritative, they can never say all that can be said about strategy. This is because strategy is always concerned with creating a desired configuration of circumstances, and circumstances are ever changing.

At least since the time of Classical Greece, men realized that the freedom to survive on one's own terms was dependent on a favorable configuration of circumstances. With this understanding came the awareness that to be human was to exist within undifferentiated nature while always imagining some existence beyond the Brownian motion of primordial chaos. People learned that to find order in the play of circumstances required a sustained act of imagination.

How imagination was employed influenced how the play of circumstances might unfold. From this beginning, the narrative form expanded until it became the primary means of imposing order or exploiting propensity. At the same time, because the differentiation of circumstances is always only an approximation, strategy's imagined futures cannot be narrowed down to a single optimal future. Human beings don't know enough about past and present circumstances to accurately forecast the one decision path that leads to the one best future. Strategy must work in terms of a set of acceptable futures rather than a single "best."

Therefore, circumstances without narrative are "like uncarved wood. Merged, undifferentiated…. Like muddy water." Confronted with bounded but largely undifferentiated circumstances, the strategist must still create a narrative to explain why the circumstances he contemplates are bounded in one way and not another. It is thus apparent that strategy cannot exist independently of narrative.

### **Associations and Logics**<sup>44</sup>

This second section refines many of the themes and ideas of the first in order to suggest how the strategist determines a path running from the past to some acceptable future. Marking the path toward the

<sup>44</sup> The components of narrative—in particular plot—reveal a causal logic. Logic has a variety of meanings and this makes comprehension problematic. In the present investigation, "logic" is defined according to the Oxford English Dictionary as "the science or art of reasoning as applied to a department of knowledge."

<sup>&</sup>lt;sup>43</sup> Lao-Tzu. *Tao Te Ching*, Trans. Robert G. Henricks (New York: Ballantine Books, 1989), 95. This passage is from a verse describing the primal man, or he who is "skilled at practicing the way."

set of acceptable futures is the primary function of plot and logic. Human beings associate otherwise undifferentiated circumstances in order to develop adaptive responses to an often-dangerous environment; this function is part of cognitive biology. This associative faculty generates a tension between freedom and constraint. This is experienced as a pattern of circumstantial attraction and repulsion within the environment, and this pattern allows the strategist to begin differentiating circumstances on the basis of relevance.

#### The Dual Mind

Logic evolves from policy and purpose. It is expressed as a set of propositions and conclusions built upon the necessary and sufficient linkage of the circumstances relevant to a conflict. Strategy explains why outcomes in one part of a system influence events in another. The entire cognitive system underpinning war and conflict, from policy to tactical action, is *causal* because it moves circumstances toward a pre-conceived pattern by framing past events as the necessary antecedents of a desired future. At the same time, the strategist recognizes the enduring presence of uncertainty and chance—and thus also creates causality by exploiting unforeseen events.

Causes move circumstances by highlighting choices. Choices become visible through logic provided by narrative. A decision is, at its most basic, a choice between competing ideas of "if." Assuming the existence of a clearly defined aim, then a decision is the choice of how best to form a statement of the form "if P, then Q," where P is an option and Q is the aim remaining constant. This is the pattern of stories and histories. Narratives transform circumstances into plot elements, primarily by linking the relevant circumstances together in chains of "if/then" statements. In more objective, less fictional narratives, these chains form the propositions of logic. At its most rigorous, causal logic becomes deduction.

The singularity imagined by Gaddis is determined by this kind of logic. It is the *present* that generates such a singularity, and it is this *thing* that the strategist engages. Just as Gaddis's historian uses the fluid and uncertain future, relative to its past, to fix and stratify the past, so the strategist imagines the

past in such a way that it determines a set of acceptable futures that systemically transform the unacceptable into the unimaginable.

This kind of transformative imagination seems to be a biological function "hardwired" into the human brain. As early as 1890, William James, one of the fathers of Psychology in America, observed that

In man the negation of all fixed modes is the essential characteristic. He owes his whole pre-eminence as a reasoner, his whole human quality of intellect, we may say, to the facility with which a given mode of thought in him may suddenly be broken up into elements which recombine anew. Only at the price of inheriting no settled instinctive tendencies is he able to settle every novel case by the fresh discovery by his reason of novel principles. 45

James here posits that people reason primarily in two ways—by "association" or by what he calls "true reason." Association works by comparing new things to old and finding the similarity; put another way, association makes analogies and seeks points of familiarity. True reason is based on abstraction seeking to explain and differentiate. He wrote "If a philosopher wishes to prove to you why you should do a certain thing, he may do so by using abstract considerations exclusively; a savage will prove the same by reminding you of a similar case in which you notoriously do as he now proposes, and this with no ability to state the point in which the cases are similar."<sup>46</sup> Over time, psychologists have tested this perspective in variety ways.

Allan Paivio has refined James's basic schema into what he calls a "dual coding approach:" "The theory is based on the general view that cognition consists of the activity of symbolic representational systems that are specialized for dealing with environmental information in a manner that serves functional or adaptive behavioral goals... Human cognition is unique in that it has become specialized for dealing simultaneously with language and with nonverbal objects and events." Paivio extends James's relatively simple view of association and true reason into a model of the mind integrating non-verbal and verbal

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<sup>&</sup>lt;sup>45</sup> William James, *The Principles of Psychology* [New York: iBook Edition, 1890], 1249.

<sup>&</sup>lt;sup>46</sup> James, *Principles of Psychology*, 1244.

<sup>&</sup>lt;sup>47</sup> Allan Paivio, Material Representations: A Dual Coding Approach (New York: Oxford U.P., 1990), 66.

systems of representational understanding. Perhaps the most useful source for applying these observations to the effort to understand strategy as narrative-dependent is Daniel Kahnemans's review of the most current research in cognitive psychology, and his reflections on the implications of this research.

Kahneman argues that the mind functions by rapidly forming associations between sensory input and stored memories. This is the essential premise behind the idea that a narrative can limit options or change the perception of reality. Associations and experiences have a direct, measurable influence on both behavior and thought. First, the world is perceived through two equal and overlapping mental systems:

System 1 operates automatically and quickly, with little or no effort and no sense of voluntary control... System 2 allocates attention to the effortful mental activities that demand it, including complex computations. The operations of System 2 are often associated with the subjective experience of agency, choice, and concentration. 48

Second, the human brain is subject to "priming." This means that the appearance of certain stimuli activate linkages that expand meaning. In one experiment, students were asked to construct sentences from "random" sets of words. In the target population, the lists consisted of words "such as *Florida, forgetful, bald, gray,* or *wrinkle.*" A typical reader derives the concept of "elderly" from such words—but this association is not the point of the experiment. Rather, the variable measured is the effect of this association on subsequent behavior. "As… predicted, the young people who had fashioned a sentence from words with an elderly theme walked… significantly more slowly than the others."

Researchers in the field of cognitive psychology have found that, in Kahneman's words, the mind is an associative engine over which people have only limited control. System 1 creates the relevant linkages and can communicate them to System 2, but System 2, the system of agency and choice, cannot consciously communicate with System 1. Associations, once activated, are observed to form cascades of neurological activity throughout the brain. This activity ultimately influences behavior in such a way that

<sup>&</sup>lt;sup>48</sup> Kahneman, *Thinking, Fast and Slow*, 20.

<sup>&</sup>lt;sup>49</sup> Ibid., 53.

test subjects interact with their environment on a pre-conscious or a-logical level. Associations literally influence the nature of individual reality in a tangible way. It is only this subsequently *perceived* individual reality that is subject to logic and rational consideration.

The concept of *cognitive ease* dictates that the brain connects "easy" or "familiar" with "good"—cognitive ease is experienced as a feeling of wellbeing and confidence. Kahneman observes that, as with priming, cognitive ease is influenced by the environment. Smiling makes one feel happy, just as feeling happy induces one to smile. When one experiences cognitive ease, the "happy mood loosens the control of System 2 over performance: when in a good mood, people become more intuitive and more creative but also less vigilant and more prone to logical errors." Further, research suggests that familiarity increases cognitive ease, and thus favorability of impression. Confronted with a list of made up "words," in which some repeat over time and others appear only once, subjects overwhelmingly intuited that those "words" appearing most often where positive: "the words that were presented more frequently were rated much more favorable than the words that had been shown only once or twice. The finding has been confirmed in many experiments, using Chinese ideographs, faces, and randomly shaped polygons." <sup>51</sup>

The most important lesson for the present purpose is that the human mind naturally generates linkages between perceptions and memories. Humans make sense of their environment through the continuous interaction of two distinct cognitive systems. System 1 is intuitive and manages threat perception, pattern recognition and a vast database of memories that it creatively associates to enable the emergence of conscious meaning. System 2 is the home of the ego; it manages attention and effort to handle difficult problems and unfamiliar inputs requiring calculation or computation.

System 1 communicates with System 2 through emotions and intuitions. Easily developed associations cue System 1 that the threat level is low—which is experienced by System 2 as wellbeing. In this state, research has demonstrated that creativity is enhanced, but at the cost of logical analytical rigor.

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<sup>&</sup>lt;sup>50</sup> Kahneman, *Thinking*, *Fast and Slow*, 69.

<sup>&</sup>lt;sup>51</sup> Ibid., 66.

The opposite in also true: when associative connections prove difficult for System 1, it signals System 2 to get to work. One's perception of anxiety increases, pushing System 2 to apply logic, analysis and computation in a conscious effort to determine the optimal reaction. From the interaction of the two systems, the human organism generates survival-oriented responses to a complex and often dangerous environment. Generating a sense of ease and familiarity initiates a return to creative wellbeing—and thus System 1 provides a powerful incentive for an efficient System 2 response.

It may be tempting to deny the relationship between the two systems and one's perception of reality. This would be an act of self-deception, because as Kahneman writes, "You do not believe that these results apply to you because they correspond to nothing in your subjective experience. But your subjective experience consists largely of the story that your System 2 tells itself about what is going on." Kahneman suggests that one's conscious explanation of reality is, in some sense, a narrative constructed by one part of a person's mind to provide a rationale for action by explaining unfamiliar circumstances. The very human need to differentiate the sea of circumstances thus has its basis in a well-documented aspect of cognitive function.

The interaction of Kahneman's Systems 1 and 2 should not be considered as all-powerful and absolute. Differentiated circumstances conform to models or schema—and these do not exist in isolation. Narratives compete, and "the effects of the primes are robust but not necessarily large. Among a hundred voters, only a few whose initial preferences were uncertain will vote differently about a school issue if their precinct is located in a school rather than in a church—but a few percent could tip an election." This caveat, for robustness (strength or reliability) rather than size, is equally applicable to understanding the effects of narrative on strategy.

<sup>&</sup>lt;sup>52</sup> Kahneman, *Thinking, Fast and Slow*, 57.

<sup>&</sup>lt;sup>53</sup> Ibid., 56-57.

# **Duality, Freedom and Constraint**

In terms of freedom of action, the survival of a group depends on how the group manipulates circumstances. At the macro level, the basis of such manipulation is the construction of narratives. Just as human cognitive biology cues strategists and other people to develop or revise patterns of familiar association, changes in perceived circumstances cue the development or revision of narratives.

Strategic decision-making mirrors the mental process discussed by Daniel Kahneman. System 2 is analytical and logical; it uses computation and calculation to make explicit connections between sensory and mnemonic artifacts that System 1 cannot associate. System 2 is not directly aware of the influences originating in System 1 and believes its choices are based on a changing set of rationalized judgments. As a result, people believe themselves free agents that act on the basis of logic or desire; they are unaware of System 1 setting the agenda.

Conscious calculation *explains* strategic understanding—but only partially *determines* it. Michael Roemer observes similarly constrained freedom within fictional plots. He notes "the hero sees himself as at least partially free, and since we make the same assumption about ourselves, we tend to ignore his actual situation." The "actual situation" is one in which the fictional end is predetermined—in a story, the hero has no freedom and the end is always the same. At the end of *Hamlet*, everyone dies—or it's not *Hamlet*. It is the *illusion* of the hero's freedom that generates interest and empathy. A similar illusion enables the strategist to perceive purpose within undifferentiated circumstance, thus bounding a set of acceptable futures and encouraging the belief that conscious calculation drives strategic decision-making.

Beneath the strategic understanding of System 2, a network of association bounds the observer's reality with perceptions and stored experiences generated over his lifetime. These provide a template for organizing the circumstances surrounding observed reality. It thus stands to reason that the associative

<sup>&</sup>lt;sup>54</sup> Michael Roemer, *Telling Stories* (Lanham, MD: Rowman & Littlefield, 1995), 27.

network of System 1 compels self-aware parts of the brain to believe, profoundly and implicitly, that certain things *belong* together.

System 1 associations, or the lack thereof, strongly influence how System 2 determines relevance. While these associations in their raw "System 1" matrix drive responses, desires and fears, they cannot directly convey meaning. In this way, System 1 is similar to the *annals* form examined by Hayden White. Unlike the *annals*, System 1's network of associations forms an innate pattern of circumstantial attraction and repulsion that makes differentiation possible. From a System 2 vantage, the seemingly inherent connection between some circumstances, and the contrastingly powerful sense that others have no connection, provides a foothold in the sea of undifferentiated circumstances. It is reasonable to suggest that the observer's ability to reinforce the pattern of attraction and repulsion encourages conscious, explanatory thought and the ability to differentiate circumstances.<sup>55</sup>

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We like stories, we like to summarize, and we like to simplify, i.e., to reduce the dimension of matters... The fallacy is associated with our vulnerability to overinterpretation and our predilection for compact stories over raw truths. It severely distorts our mental representation of the world; it is particularly acute when it comes to the rare event... The narrative fallacy addresses our limited ability to look at sequences of facts without weaving an explanation into them, or, equivalently, forcing a logical link, an *arrow of relationship*, upon them. Explanations bind facts together. They make them all the more easily remembered; they help them *make more sense*. Where this propensity can go wrong is when it increases our *impression* of understanding. Taleb, *The Black Swan*, 87.

Michael Roemer sees narratives as devices by which audiences learn the limitations of problem solving and the fragility of cause and effect in the face of evolving uncertainty. His writing opens the way to considering the mechanics of "expanding" a cognitive pattern of attraction and repulsion. It perhaps takes one closer to the intersection of effective strategy and narrative:

Traditional story does not explain what determines our lives or how we might control them. Any explanation would, moreover, be countermanded by the plot, which demonstrates that we cannot for long harness cause and effect to our own purposes. In narrative all solutions are temporary. Even the harmony at the end—a wedding in comedy and death in tragedy—is but a brief respite before a new eruption or conflict sets off a new story. A true and lasting solution would constitute the end of narrative. (Roemer, *Telling Stories*, 48.)

Even so, Roemer misses the innate need for closure in the generation of meaning and the kind of expansion considered here. Certainly, strategy requires some goal that, achieved, renders the community better able to survive on its own terms. Benedict Anderson, writing of the evolution of nationalism, says

<sup>&</sup>lt;sup>55</sup> This is not to say that simply because thought is conscious and explanatory, or uses a narrative form, that it is useful. Narrative is "truth neutral." Stories mislead as easily as they illuminate. In this vein, Nassim Nicholas Taleb describes a phenomenon he labels the "narrative fallacy:"

If System 2 develops a rationale for integrating unfamiliar or undifferentiated circumstances into existing associations, it does so by providing a rationale in the form of cause and effect. This is because integrating the unfamiliar into the familiar requires an understanding of what caused the unfamiliar and knowledge of where the unfamiliar came from. It is the nature of System 1 and System 2 that people often do not know that System 1 is influencing their actions. It follows that the young people who walked slower because of exposure to certain words associated with old age (described earlier by Daniel Kahneman) would not have been able to articulate the System 1 "hacking" of their ability to move.

The test subjects would instead develop an alternative rationalization such as fatigue, the onset of a cold, or low blood sugar. The words or "primes," and the physical responses to them, are like the circumstances confronted by the strategist. Narrative connects the elements within System 1's associative network so that external strategic circumstances *make sense*. It is often the case that *making sense* means associating two otherwise disparate physical phenomena. This process of connecting circumstances restores System 1's impression of associative integrity—experienced by the actor as cognitive ease. To this extent, words and circumstances affect people in similar ways—both carry the potential to "prime" the actor.

If one looks beneath colonial ideologies and policies to the grammar in which, from the mid nineteenth century, they were deployed, the lineage [from colonial state to nationalism] becomes decidedly more clear... One notices... the census-makers' passion for completeness and unambiguity. Hence their intolerance of multiple, politically 'transvestite,' blurred, or changing identifications... The fiction of the census is that everyone is in it, and that everyone has one—and only one—extremely clear place. No fractions. Benedict Anderson, *Imagined Communities* (New York: Verso, 2006), 167, 169.

It is precisely the strategist's desire to create clarity and completeness that manifests the importance for closure in the search for meaning. And, thinking about the nature of endings, Frank Kermode has put it this way:

Men in the middest [sic] make considerable imaginative investments in coherent patterns which, by the provision of an end, make possible a satisfying consonance with the origins and with the middle. That is why the image of the end can never be *permanently* falsified. But they also, when awake and sane, feel the need to show a marked respect for things as they are; so that there is a recurring need for adjustments in the interest of reality as well as of control. Kermode, *The Sense of an Ending*, 17.

The approach to the tension between open-endedness and closure suggested here is that strategic narratives are *both* open and closed. The ending defines previous investment of effort and resources, but also opens further strategic engagement. If strategy achieves a goal, but at the cost of creating a final closure, it is ultimately failed and will lead to the death of the practicing community.

Lacking any other means by which to understand the impulses arising from the mind's associational machinery, the research test subjects' conscious minds craft stories to provide a casual framework. They place themselves, as heroes, at the center of a short story they are unaware they have scripted. There is no way for them to know of this participation in a fictional enterprise. <sup>56</sup>

The fictional hero in a standard narrative is constrained by a similar "System 1" of unseen forces that are literary rather than psychological. By providing a database of received associations, these literary forces function in much the same way as biological cognitive systems. The literary analog consists of elements such as plot, theme and story. The hero's actions, speeches and relationships to other characters rationalize cultural associations and circumstances through narrative. In an admittedly metaphorical way, plot is the emergence of a particular network of associations into the audience's consciousness.

"In common usage, 'plot' suggests a plan or scheme devised by human beings to achieve their own ends..." One can therefore understand a plot as a system of interactions differentiating circumstances. It is the fundamental thing within narrative that enables ordering reality out of chaos.

The etymology of "plot" illuminates how intuitive associations are consciously and rationally connected: "The original meaning of plot as 'a spot of ground' suggests that it is perceived synchronously like a plan or design." Plot is thus the place where associations come together through a causality that generates meaning only clearly grasped in relation to a narrative's ending. Without a plot, the associated elements of a story are not linked into a cohesive whole. Without this linkage, there is no closure and, thus, no relevance.

In the domain of the real, meaning also emerges from temporal framing. The end of a war only has political meaning in reference to the sources of the initial conflict. At the same time, the way in which the war or conflict ends confirms or even transforms the intended meaning.

<sup>&</sup>lt;sup>56</sup> Kahneman, *Thinking, Fast and Slow*, 53; Roemer, *Telling Stories*, 27.

<sup>&</sup>lt;sup>57</sup> Roemer, *Telling Stories*, 39.

<sup>&</sup>lt;sup>58</sup> Ibid., 40.

History makes use of this "plot" function for the same reason. "Historiography is an especially good ground on which to consider the nature of narration and narrativity because it is here that our desire for the imaginary, the possible, must contest with the imperatives of the real, the actual." For authors of traditional narrative, "plot was not their handiwork; it was the component they inherited and passed on." To an even greater degree, historians also receive their plots, both through the legacy of inherited events and their own, internal associational machinery.

A plot occurs in time, but does not necessarily appear sequentially; the perceived sequence of action, of cause and effect, is another contribution of narrative art to the ordering of raw circumstances. "Inasmuch as we know the plot, it is synchronically present to us like a painting, yet we *experience* it in time." Put another way, the plot of *Star Wars* is a known thing that one's mind may encompass as a whole; when watching the movie, however, a viewer experiences it sequentially. A plot can remain intact *as* plot even if its pieces are re-ordered. Darth Vader's identity as Luke Skywalker's father is a plot element—as is Luke's eventual discovery of this relationship—but narrative construction could change the way and the place in which these elements were introduced without changing the essential tragic-to-comic arc of the *Star Wars* mythos.

Strategy functions in a very similar way. John Boyd implicitly understood this when he spoke to his audience about snowmobiles. Over the course of a series of visualizations, the reader dismantles a ski resort, a motorboat, a bicycle and a toy tractor or tank. At the end of the exercise, the demolition "leaves only the following separate pieces: skis, outboard motor, handlebars and rubber treads." He then "challenges his audience, what emerges when you put all this together?" The answer is a snowmobile. For Boyd, the essence of strategy, or critical thought generally, is "to be able to examine the world from a

<sup>&</sup>lt;sup>59</sup> White, Content of the Form, 4.

<sup>&</sup>lt;sup>60</sup> Roemer, *Telling Stories*, 39.

<sup>&</sup>lt;sup>61</sup> Roemer, *Telling Stories*, 41.

<sup>&</sup>lt;sup>62</sup> Frans P.B. Osinga, *Science, Strategy and War: The Strategic Thought of John Boyd* (New York: Routledge, 2007), 203.

number of perspectives so that we can generate mental images or impressions that correspond to that world."<sup>63</sup>

Readers may easily overlook the fact that Boyd's inductive/deductive process is not unconstrained or random. The circumstances that one differentiates in order to generate comprehension pre-exist a strategic context. The strategist's use of circumstances is creative, but limited by what is received from these associated but otherwise undifferentiated circumstances. *Plot*, received by classical authors from some unknown place, is the same as the *sensory impressions* Boyd receives from the world. Though the strategist may arrange and rearrange these resources, such sensory artifacts are finite and contingent. If one discards them completely, one changes or destroys a significant range within the set of acceptable futures latent within the circumstances bounded by policy.

### **Maps and Information Density**

In their understanding of plot and/or perspective, both Michael Roemer and John Boyd owe an implicit debt to Henri Bergson. Bergson was interested in the tension between events as experienced and events as described. Of the event described, he wrote

But as the comparison has made manifest a resemblance, as the resemblance is a property of the object, and as a property has every appearance of being a *part* of the object which possesses it, we easily persuade ourselves that by setting concept beside concept we are reconstructing the whole of the object with its parts, thus obtaining, so to speak, its intellectual equivalent... There precisely is the illusion. There also is the danger... For on the one hand these concepts, laid side by side, never actually give us more than an artificial reconstruction of the object, of which they can only symbolize certain general, and, in a way, impersonal aspects; it is therefore useless to believe that with them we can seize a reality of which they present to us the shadow alone. <sup>64</sup>

Simply squishing things together cannot put reality back together again. Boyd understood this in terms of modern physics and mathematics: "When the intended distinction between observer and observed begins

<sup>&</sup>lt;sup>63</sup> Osinga, Science, Strategy and War, 203.

<sup>&</sup>lt;sup>64</sup> Henri Bergson, An Introduction to Metaphysics (New York: Kindle Books, 2010), Kindle LOC 202.

to disappear, the uncertainty values hide or mask phenomena behavior". <sup>65</sup> Roemer understands much the same thing when he sees plot as a single entity that is segmented into parts only to enable a shared experience.

Consider the challenge faced by the cartographer. The more closely he mirrors the real world in his map, the more it duplicates what is already there. Beyond a certain point, the process of adding detail renders the map less easy to understand—leading to increased confusion and disorder. A map that was a perfect image of New York City would make navigation acutely more difficult than navigating with no map at all.

This describes the strategist's challenge. Policy takes stock of circumstances, of things as they are and are becoming, and determines what they *should* look like. The strategist receives this set of existing and desired circumstances and seeks to understand *why* some circumstances, out of the entire field proscribed by policy, map onto the configuration of circumstances imagined by the policy maker. But without the creative tension between freedom and constraint, the strategist is forced to examine every current circumstance in order to find relevance. The value of strategy lies in how well the strategist has determined the relevance of his circumstances. If everything is relevant, the strategist faces the paradoxical condition that relevance becomes irrelevant.

Relevance is gauged by how well a circumstance maps onto the desired configuration. The strategist links circumstances to project a set of anticipated decisions into the future. He marks this path by differentiating circumstances comprising the existing policy environment so that conditions increasingly reflect the desired configuration of circumstances.<sup>66</sup> This intellectual exercise leads to the set

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From Feynman's perspective no probability wave needs to be associated with the electron. Instead, we have to imagine something equally if not more bizarre. The probability that the electron—always viewed as a particle through and through—arrives at any chosen point on the screen is built up from the combined effect of every possible way of getting there. This is known as Feynman's "sum over paths" approach to quantum mechanics. Greene, *The Elegant Universe*, 111.

<sup>&</sup>lt;sup>65</sup> Boyd, "Destruction and Creation," 5.

<sup>&</sup>lt;sup>66</sup> This is similar to the vision of probability within quantum mechanics known as the sum over paths:

of acceptable futures; if the decisions differentiate circumstances that are irrelevant, the set of *possible* futures drifts proportionally further from the set of *acceptable* futures.

There is another risk that the strategist must confront. In the same way that a map can have too much detail, the number of decisions may become too dense. This renders the set of acceptable futures too specific. Over determining the set of acceptable futures increases the strategy's vulnerability to chance, disorder and confusion. <sup>67</sup> Boyd would see this as the result of Heisenberg's uncertainty principle, Roemer might see it as the pursuit of final and enduring closure, and Bergson would see it as the inevitable result of confusing the model for the thing modeled. <sup>68</sup> All three could be expected to agree that

Developing a set of acceptable futures requires estimating the *aggregate* probability of a very large, possibly infinite, number of decision paths touching a very large number of potentially relevant circumstances. Simply determining the probability of a single action producing a single effect is not useful. At the same time, it is probably not possible to compute the probability of all paths leading to an acceptable future. Everett Dolman explicitly connects this condition to strategy:

There will always be the image of what might have happened if we did not steer from right to left, and even though we will never float through that section of the river in the same way again, that image will impact future decisions as much as the physical lay of the stream. The strategist is no different from the quantum physicist in this regard. No one can be truly objective, for everyone is an element within the world of war. What one chooses to examine will change the future because every choice is real, and reality cannot be observed without changing it. Dolman, *Pure Strategy*, 100

The magnitude of the uncertainty values represent the degree of intrusion by the observer upon the observed. When intrusion is total... the uncertainty values indicate erratic behavior. When intrusion is low, the uncertainty values do not hide or mask observed phenomena behavior... In other words, the uncertainty values not only represent the degree of intrusion by the observer upon the observed but also the degree of confusion and disorder perceived by that observer. Boyd, "Destruction and Creation," 5. [The assertion here is that increasing decisions = increasing intrusion.]

Michael Roemer wrote: "A true and lasting solution would constitute the end of narrative... Until such a time, we shall continue to be out of harmony with the often incomprehensible whole of which we are a part—trying at once to accommodate to it and to find ways of bending it to our purpose. Roemer, *Telling Stories*, 48.

#### Henri Bergson wrote:

There is a succession of states, each of which announces that which follows and contains that which precedes it. They can, properly speaking only be said to form multiple states when I have

<sup>&</sup>lt;sup>67</sup> Imagine a roulette table. There are a variety of ways one can place a bet, from simple 1:1 pay-offs involving the color the marble will hit, to larger pay-offs with multiple variables—of course the more variables involved, the lower the odds are that they will come together on any given spin. Increasing the density of decisions is like betting on multi-variable roulette outcomes. The more linked decisions one projects into future, the greater the likelihood that one makes a bad decision or that something unexpected happens that renders all previous decisions irrelevant. More decisions means the decision-maker must achieve a greater match between concept and reality.

<sup>&</sup>lt;sup>68</sup> John Boyd wrote:

both the strategist and the cartographer create utility and value through what they leave *out*, by determining the relevance of a particular detail or circumstance relative to the strategic purpose.

For the strategist, the narrative that rationalizes things as they are by using decisions according to strategic rules consistent with a causal logic is always an approximation. As circumstances change or the density of decisions becomes too high, the narrative through which one derives the set of acceptable futures becomes a liability. The path of decisions ceases to produce valid propositions within the causal logic of policy; strategy ceases to harmonize the nature of things with human actions and aims. In order to maintain the integrity of the system (state, military, etc.), the narrative is amended and those elements that remain relevant become the basis of a new narrative, a revised plot, an adjusted position of advantage.

This rearranging of things is purely cognitive—it initially has no ground in physical reality. There is, in Bergson's view, no direct, shared identity between the representation and the experience itself.

Tangible transformation happens when the differentiation of circumstances is shared widely enough that people began acting upon the physical world as though the narrative causal logic was *absolutely* necessary and sufficient. 69

In life and strategy, the plot maintains these ontological and epistemological functions, but the raw material from which the plot is constructed emerges from the environment as bounded by the policy maker. In all cases, plot is the place where perceptions and associations come into contact and create the causal logic from which meaning arises. The task of rearranging the circumstances of the plot falls to the strategist.

already passed them and turn back to observe their track. Whilst I was experiencing them they were so solidly organized, so profoundly animated with a common life, that I could not have said where any one of them finished or where another commenced. In reality no one of them begins or ends, but all extend into each other. Bergson, *An Introduction to Metaphysics*, Kindle LOC 152.

<sup>69</sup> In fact, it *is* truly necessary and sufficient if one wishes to rearrange circumstances; it is not, however, necessary and sufficient *because of* any past human perceptions or explanations. The source of causation is thus real but perhaps *displaced*.

# **Meaning, Sense and Memory**

Fictional narrative provides a lens through which the audience is able to catch intuition, imagination and purpose in the act of differentiating relevant circumstances. The audience observes the hero develop a logically entailed set of acceptable futures out of the decisions, actions and events that follow from his evolving understanding. For the audience, the end of the story is a necessary and sufficient reflection of events and plot elements specific to the narrative. The ending, as the outcome of circumstances and decisions, validates a shared meaning that emerges from the narrative as a whole. In this sense, it is the ending that reflects backwards over the story in such a way that circumstances form a new and different context.

This process is similar to priming, in that elements of the narrative trigger within the audience a sense of familiarity or recognition. It is this recognition that, culminating in narrative closure, affirms the associative network of System 1. The most basic prime within narrative is identification with the protagonist. Without this, narrative logic finds no expression and the ending can have no valedictory meaning. Roemer stresses the identification of the audience with the actors, or the reader with the hero: "It is our kinship with the figures that makes them persuasive or 'real,' for it allows us to endow them with our own experiences and feelings."<sup>70</sup>

In strategy, a similar connection exists. The possibility of strategic decision-making rests on a community's understanding of the causally determined outcome as a function of the position of the community as its own desired future. The future that emerges from the solution set of all possible futures is, in the final analysis, a revised and hopefully stronger communal identity. In a non-fictional narrative the community is the hero of its own narrative, in the same way as Kahneman's test subjects, and must accordingly believe that the application of intuition, imagination and purpose has necessarily realized the

<sup>&</sup>lt;sup>70</sup> Roemer, *Telling Stories*, 24.

resolution, rather than merely rationalized it. Without this belief, the world is formless and random—and strategy has no power to help people survive on their own terms.

The interaction between System 1 and System 2 depends on the making of narratives as the primary way to familiarize the unfamiliar. The construction of narrative always occurs in the wake of the cascade of associations. This is because it is disruption of the cascade that cues System 2. The logical interpretation of human interest, motivation, options—the whole range of strategic context—emerge from non-rational connections originating within System 1.

The intuitive, unconscious System 1 always gets the first crack at organizing sensory input. System 2 must always follow this invisible lead and offer an explanation that succeeds only by inducing a sense of familiarity. This in turn arises from the perception of causal logic. The most significant implication of this aspect of human cognition is that conscious understanding is always and only an approximation of actual, direct experience.

Because strategy is a specific type of intellectual effort, it cannot be understood by developing increasingly thin-sliced examples of strategic context or circumstance. Such a project is like trying to understand a frog by cutting up a dead specimen and labeling the resultant parts. In more concrete terms, labeling a decision as "grand strategic" does nothing to illuminate the rationale for the decision. In such an instance it is worth noting, as Henri Bergson did, that putting the dissected parts back together does not create a new frog.

#### Circumstance and Grammar

This third and final section discusses the grammar that renders strategy as possible. What is the nature of Clausewitz's "grammar of war?" Grammar functions like a set of "meta-rules," and this discussion begins with an inquiry into how such rules function. The strategic grammar reflects the mechanics of rearranging circumstances in order to change the strategic context. This leads the community to a position of relative advantage. The strategist is not limited to manipulation of circumstance to create discrete, intended outcomes; exploitation offers another source of advantage and

an alternative to more distinctively "Western" planning approaches. The strategic grammar addresses this aspect of strategy. Because the practice of strategy develops a system of logic and meaning within time, it cannot be evaluated without some external point of reference. Enduring transformational rules of strategy provides such a reference.

#### **Grammar as Meta-Rule**

Narratives, and their supporting plots and logics, require a set of rules that enable one to generate propositions valid within the systemic logic of the narrative. This kind of rule set is called a grammar. Because strategy depends on narrative, it follows that strategy is a rules-based practice. Rules constrain action. Antulio Echevarria explains this in the context of Clausewitz: "Even his statement that 'War has its own grammar, but not its own logic,' which is usually understood to reinforce the idea that war is merely a political instrument, also places as many restrictions on policy as grammar does on speech."

In the context of this paper, the grammar of war is strategy.<sup>72</sup> It is this "deep structure," to borrow a term from linguistics, which is relatively unchanging—not some tidy set of prescriptions.<sup>73</sup> Because circumstances change, and strategy is the art of organizing circumstances, the unchanging kernel of strategy is *not* a frozen oracle, but a cognitive process: a grammar of rules to generate valid propositions originally pertaining to the suitability of accepting or refusing battle. Over the course of the modern era, this workload has expanded to include the utility of any coordinated approach, national or combined, for achieving some advantage within the international arena.

<sup>&</sup>lt;sup>71</sup> Antulio J. Echevarria, *Clausewitz and Contemporary War* (Oxford: Oxford University Press, 2007), 88.

<sup>&</sup>lt;sup>72</sup> Some might argue that *warfare* is the grammar of war; the author answers that strategy is the grammar that composes a set of meaningful, useful actions—warfare is a composition created through strategy-as-grammar.

<sup>&</sup>lt;sup>73</sup> "This instinctive knowledge, if you like, this schematism that makes it possible to derive complex and intricate knowledge on the basis of very partial data, is one fundamental constituent of human nature," Noam Chomsky and Michel Foucault, *The Chomsky-Foucault Debate on Human Nature* (New York: New Press, 2006), 13. This "instinctive knowledge" is the deep structure, or "meta-rules" that make possible the application of context-dependent, or surface, rules. Deep structure may be to English Grammar what Strategy is to Tactics.

Thucydides, Sun-Tzu and Clausewitz do not specify how to practice strategy, but from their texts, one can infer some things about how such strategic rules function. The strategic rule-set should be expected to reveal underlying logic and facilitate the identification of circumstances with potentially high relevance in a given context. These rules enable a decision maker to determine the general structure of a contextually appropriate narrative; they should show how best to manage uncertainty and chance, the broad plot structure, and any themes that could help sustain relevance in the face of evolving circumstances. The rules should, perhaps most importantly, act as a pruning function that helps decision makers to describe key elements of an acceptable future and eliminate unacceptable futures from consideration. These are rules that enable the actor to harness positive aspects of emergence.

Colin Gray, Hew Strachan, Basil Liddell Hart and others seem to agree with Echevarria that "grammar" is a component of strategy. 75 Clausewitz, Sun-Tzu and Thucydides suggest this view

Regarding Sun-Tzu "In our encounter with a text from a tradition as different from ours as is classical China's, we must exercise our minds and our imaginations to locate it within its own ways of thinking and living." Sun-Tzu, *The Art of War* (Ames), 11.

Regarding Clausewitz, Jon Sumida cautions the reader that "The standard characterization of *On War* as a theory of a phenomenon has caused critics to read it as presenting a certain fixed understanding about armed conflict." This is not the best approach, he argues, instead developing an entire reading of Clausewitz built around the idea that "Clausewitz's approach to theory may be seen not only in terms of how it might improve an individual's decision-making capacity in war and politics, but also in terms of how it might be a pedagogical model applicable to the development of the ability to do anything that is difficult, complex, contingent, and dangerous." Jon Sumida, *Decoding Clausewitz: A New Approach to 'On War'* (Lawrence: University of Kansas Press, 2008), 5.

Colin Gray writes "the strategist grants willingly that war is a blunt instrument of policy and that its own grammar and dynamics can subvert political intentions." Gray, *Fighting Talk*, 18; Hew Strachan says of Clausewitz "When he concluded that war had its own grammar but not its own logic, he implied that strategy was part of that grammar." Hew Strachan, "The Lost Meaning of Strategy," *Survival, vol. 47 no.3 Autumn 2005*, 2; Liddell-Hart does not use the term "grammar," but describes a function that can only be "grammar:" "For strategy is concerned not merely with the movement of forces—as its role is often defined—but with the effect." Basil Liddell-Hart, *Strategy* (New York: Praeger, 1967), 335.

<sup>&</sup>lt;sup>74</sup> For example, Thucydides tells the reader that he "wrote the history of the war between the Peloponnesians and the Athenians, beginning at the moment that it broke out, and believing that it would be a great war, and more worthy of relation than any that had preceded it." Robert Strassler, *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War* (New York: Simon & Schuster, 1998), 1. If his intent is simply to record history, one should not expect much in the way of theoretical analysis. Indeed, Donald Kagan does not note any such theory, but praises Thucydides's attention to detail and wisdom: "His work is justly admitted as a masterpiece of historical writing and hailed for its wisdom about the nature of war, international relations, and mass psychology." Donald Kagan, *The Peloponnesian War* (New York: Penguin Books, 2003), XXV.

<sup>&</sup>lt;sup>75</sup> Again, this acknowledges that strategy is that thing within the phenomenon of war that enables something like the valid proposition of logic to be formed. The exact nature of the "grammar" is never really described.

throughout their works. One of Clausewitz's most enduring rules states the absolute primacy of a trinity of reason, passion and chance. This schema expresses a set of logical principles from which practically infinite forms of war emerge. This schema expresses a set of logical principles from which practically infinite forms of war emerge. The Just as three planets pull space into a distinct and unique shape through their combined gravitational field, so reason, passion, and chance shape each encounter in war through the shifting pull of their combined field. The failure to appreciate this effect dramatically increases the risk that war will spiral out of control and cease to function toward the requirements of policy. The integration of this "remarkable trinity" into strategic decision-making is thus one example of the way strategy entails the use of rules for organizing a strategic plot and supporting causal logic.

In a similar vein, one can infer from Thucydides that logic emerges from the various tangible and intangible configurations of power within a group of states. For example, Pericles says, "In a single battle the Peloponnesians and their allies may be able to defy all Hellas, but they are incapacitated from carrying on a war against a power different in character from their own…" In the "Melian Dialogue," he reveals a hard, often cruel, set of rules that govern these power relationships. To Sun-Tzu points out that although "there are no more than five cardinal notes, yet in combination, they produce more sounds than could possibly be heard…" This last suggests that from a relatively modest rule-set practically infinite variation emerges.

Each of these strategic rules explains why one war is so different from another. But if this is the case, what is the use of these rules? Alan Beyerchen wrote a groundbreaking article demonstrating how, in *On War*, structure functions as an intuitive apprehension of war as a non-linear, complex phenomenon. Beyerchen argues that Clausewitz understood war as inherently unpredictable—"chance and complexity

<sup>&</sup>lt;sup>76</sup> Clausewitz, Carl von, *On War*, ed. and trans. by Michael Howard & Peter Paret. (New York: Knopf, 1993), 89.

<sup>&</sup>lt;sup>77</sup> Robert Strassler, *The Landmark Thucydides: A Comprehensive Guide to the Peloponnesian War* (New York: Simon & Schuster, 1998), 81, 351-357.

<sup>&</sup>lt;sup>78</sup> Sun-Tzu, *The Art of Warfare*, trans. Richard T. Ames, ed. Robert G. Henricks (New York: Ballantine Books, 1993), 107.

dominate simplicity in the real world."<sup>79</sup> No single war necessarily maintains its structure. Ends change, capacities for violence evolve, and even the antagonists may change over time. Likewise, no two wars are likely to be the same. Methods, actors, and interests all turn on forms of causation whose effects are not proportional or even reproducible. What rules have been observed, then, are likely tied to one's ability to perceive and manage uncertainty and chaos.

All of this suggests that the rules of strategy must be, in the words of Noam Chomsky, *transformational*, being a system able to "relate... abstract underlying mental structures to surface form, the rules that we would now call 'grammatical transformations'." Chomsky is interested in how language use is inherently creative, allowing speakers to form sentences and comprehend linguistic meanings they have not previously seen. Chomsky's argument is that language is not simply modeled behavior, that it is more than simply building a catalog of more or less useful sentences.

Language is built upon a small set of rules that underlie the formal and prescriptive grammatical rules children used to learn in school. Further, Chomsky argues that these underlying rules are capable of producing practically endless changes in the meaning derived from phrases or sentences. This ability to creatively apply a consistent set of underlying rules to a constantly changing set of circumstances is, he believes, essential to creating understanding over time and space: "The systems that two speakers of English arrive at on the basis of their very different experiences are congruent in the sense that, over an overwhelming range, what one of them says, the other can understand." Chomsky shows the student of strategy how rules are not necessarily prescriptive, but can create seemingly infinite meanings from finite material.

<sup>&</sup>lt;sup>79</sup> Alan Beyerchen, "Clausewitz, Nonlinearity, and the Unpredictability of War," *International Security*, Vol. 17, No. 3 (Winter 1992/93), 90.

<sup>&</sup>lt;sup>80</sup> Noam Chomsky, *Selected Readings on Transformational Theory*, ed. J.P.B. Allen and Paul Van Buren (New York: Oxford U.P., 1999), 19.

<sup>81</sup> Chomsky and Foucault, *The Chomsky-Foucault Debate*, 12.

# **Rearranging Circumstances**

Clausewitz recognized that waging war is to ride on a tiger's back. He says that in war one must "expect positive reactions, and the process that results. Here we are not concerned with the problem of calculating such reactions... but rather with the fact that the very nature of interaction is bound to make it unpredictable." It is perhaps only coincidental that systems theory sees positive feedback as the source of emergence. For Clausewitz, such positive reactions mean that war is not a simple matter of calculation, but that success is a matter of talent. The talented commander is the one best able to achieve success in this uncertain environment.

Within the present context, such talent consists of the ability to anticipate or generate transformations of circumstance through their differentiation from the larger sea of circumstances and planned or anticipated future configurations of circumstance. Understanding the strategic rule-set allows one to do this, just as a musician uses a small number of notes to create an infinite diversity of music. Rules in this sense provide explanations for the nature of things rather than prescriptions for action: "a paradoxical trinity," "Having appraised the advantages, heed them. Then make them into *shih* to aid with the external," "Fear, honor, and interest motivate her as they would any others in her place." The understanding of forces latent within many emergent human interactions enables people to differentiate circumstances through the development of causal logic. This logic is developed through the application of the sorts of "deep structural" rules observed by Thucydides, Sun-Tzu and Clausewitz.

Strategy opens the possibility of shaping a set of futures much as a sculptor shapes an uncarved block of wood. The strategic rule-set allows a variety of meanings to emerge from any given set of

<sup>82</sup> Clausewitz, *On War*, 138-139.

<sup>&</sup>lt;sup>83</sup> Ibid., 89.

<sup>&</sup>lt;sup>84</sup> Sun-Tzu, *The Art of War: the Denma Translation*, trans. The Denma Translation Group (Boston: Shambhala, 2002), 5. For this quotation, the author prefers this translation to others because it so clearly captures the connection between circumstances and the generation of purposeful potential.

<sup>85</sup> Strassler, Landmark Thucydides, 108.

circumstances—just as grammar transforms the meaning of a sentence without fundamentally changing the words within the sentence. The talented strategist thus turns circumstances within the international arena, both planned and unexpected, towards the purpose of the conflict.

Because conflict is a phenomenon born of constant and uncertain transformation, it can easily produce results never imagined by its instigators. As conflict progresses, both expected and unexpected results generate the conflict's propensity towards an increasingly contingent set of possible futures. The process of making decisions, taking actions, observing outcomes and developing the narrative, progressively orients relevant circumstances toward a specific acceptable future. At the same time, because more than one community practices strategy at any given time, the set of relevant circumstances and possible futures shifts throughout the conflict.

These compound international configurations of power are complex. As strategy re-arranges the ways in which circumstances interact, circumstances in turn modify need, changing purpose and thus strategy. Sun-Tzu suggests this when he observes a reciprocal and conditional connection between certain types of circumstance:

Disorder is born from order; cowardice from courage; weakness from strength. The line between disorder and order lies in logistics (*shu*); between cowardice and courage, in strategic advantage (*shih*); and between weakness and strength, in strategic positioning (*hsing*)... Thus the expert in battle seeks his victory from strategic advantage (*shih*) and does not demand it from his men.<sup>86</sup>

It follows that to use *shih* to its full potential, the strategist must remain sensitive to *changes* in circumstances. This sensitivity allows one to understand both how strategic potential is generated and, perhaps more importantly, how to release this potential to achieve a configuration of circumstances favoring an acceptable future.

Thus, although one can focus on the "grammar of war" as an end in itself—as the essence of strategy—of greater significance for the practitioner is the *way* in which a very special type of rule, applied in the face of infinite circumstance, prunes the decision maker's options. This pruning function

<sup>&</sup>lt;sup>86</sup> Sun-Tzu, The Art of War, 80-81.

differentiates acceptable futures as a discrete range within the set of possible futures. Strategic rules as uncovered in Thucydides, Sun-Tzu, and Clausewitz are not found in any explicit list or table; within these texts, they are revealed through a variety of examples and arguments that allow the rules to be derived relative to a given strategic context. Outside of the books, these rules are learned through patient observation.

A given rule may be articulated in a variety of a ways without changing the fundamental nature of the human interaction it explains. This is a more focused application of the idea, expressed in the first section, <sup>87</sup> that *interpretation* of the past is essential to developing relevance in the present. As a result, the rules operate adequately enough to differentiate circumstances in the face of chaos—they are robust and resilient.

It is very important that one understand that, although strategic rules are transformational and contextual, they are real. A flawed understanding of such a rule set leads to a flawed strategy. In short, the rule set described here is not simply whatever the strategist wishes it to be. The character of this rule set aids in developing a strategic narrative that differentiates circumstances on the basis of relevance. This in turn enables the strategist to avoid seeing the world and the rivals within it as mirror images. One of the purposes of strategy is to allow a community to identify relevant circumstances—and this is not possible if the strategist lacks perception of difference. The emergent acceptable future evolves out of, and in turn shines a light on, the past circumstances that explained the narrative's origin.

These rules do not dictate specific responses. Instead, they operate by suggesting conceptual tools by which one may differentiate circumstances. Thus, if fear, honor and interest are primary components of strategic decisions, an actor (allied or rival) has a tool that, in the proper context, allows him to manipulate relevant circumstances in order to increase the propensity towards a certain desired condition. A narrative may advance due to the social interactions typical of a concern with honor, or to calm fear. Likewise, a narrative may advance through changes in relative wealth over time. Strategy frames the

<sup>87</sup> See the above section titled "Translating the Past."

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future by helping actors to observe and then understand what Sun-Tzu would have called the "rising and falling of the ten-thousand things." In creating valid propositions, the rules here envisioned provide the basis for operating within a strategic logic—a logic functioning much like the plot of a fictional narrative.

### **Exploitation**

One of Clausewitz's most succinct rules in fact suggests how the interaction of different but complimentary modes of thought generates the cognitive spectrum of conflict: "tactics teaches the use of armed forces in the engagement; strategy, the use of engagements for the object of the war." Throughout his treatise Clausewitz argues that war unbound by purpose as prescribed by policy can serve no beneficial end. This rule is the source of the notion that strategy is the use of outcomes in one part of a system to achieve desired effects in another part of the same system.

Another implication of Clausewitz's concern with the primacy of policy is the need throughout a conflict for repeated systemic exploitation in order to align the greatest proportion of circumstances toward the primary outcome or objective. One must continue to exploit enemy weakness until the enemy feels compelled to act in accordance with one's policy. Accordingly, the first chapter of *The Art of War* concerns the necessity of appraising the circumstances relative to waging successful war. Sun-Tzu advises commanders to seek out information and, at the same time, manipulate the enemy's perception of the same. In this way, circumstances come to hold potential energy that is used to execute strategy and gain victory. The effective general is able not only to gauge relative strength, but exploit the enemy's own perceptions to further enhance his ability to shape a desirable future.

<sup>&</sup>lt;sup>88</sup> In *The Lao-Tzu*, which permeates the *Art of War*, "the 10,000 things" are shorthand for the world of circumstances and phenomena.

<sup>89</sup> Clausewitz, On War, 128.

<sup>&</sup>lt;sup>90</sup> "If war consisted of one decisive act, or of a set of simultaneous decisions, preparations would tend toward totality, for no omission could ever be rectified. Clausewtiz, *On War*, 79. Clausewitz here acknowledges that war consists of multiple efforts.

<sup>&</sup>lt;sup>91</sup> "And so base it [war] in the five. Compare by means of appraisals. Thus seek out its [war] nature;" "Having appraised the advantages, heed them. Then make them into *shih* to aid with the external. *Shih* is governing the

For his part, Thucydides acknowledges the role of chance but then continues a little later, as Pericles urges the Athenians to wage war on Sparta, to examine circumstances. "As to the war and the resources of either party, a detailed comparison will not show you the inferiority of Athens." Pericles goes on to paint a detailed picture of how Spartan weakness may be exploited by an Athens possessed of a shared understanding of the strategic potential stored up within the circumstances of the conflict. It is significant to an understanding of the strategic rule-set that Pericles makes clear that this war will not be won in a single action or a short time span. Victory emerges in the future, as Spartan strengths are gradually made irrelevant.

For Thucydides, Sun-Tzu and Clausewitz, strategy is concerned with explaining the strategic environment and, from this, bounding an evolving solution space within which decisions are made that render further specific actions either acceptable or unthinkable. <sup>93</sup> As a circumstance loses relevance, it becomes less and less able to influence action. Conversely, increasing relevance also increases the capacity to align a wider network of circumstances. In all cases, the temporal dimension demands the causal logic of the narrative form so that circumstances are linked in a way conducive to advantage.

When circumstances are aligned to favor one party to a conflict that party both gains opportunities for movement toward an acceptable future and constrains its rival to take actions that may move it further from the position of advantage it seeks in its turn. Because there are always at least two parties to a conflict, it is not enough simply to carry forward actions that harmonize with the strategic

balance according to the advantages;" "The military is a Tao [way] of deception—Thus when able, manifest inability... When far, manifest as near... Attack where he is unprepared..." Sun-Tzu, *The Art of War* (Denma), 3, 5, 5.

<sup>&</sup>lt;sup>92</sup> Strassler, Landmark Thucydides, 162.

<sup>&</sup>lt;sup>93</sup> Bounding the solution space is discussed as a problem with computational approaches to complexity. Morowitz, *Emergence of Everything*, 28: "Using computers, one is able to move directly to numerical solutions. But a new general feature is that the solution space becomes huge and highly multidimensional..." The author asserts that transformational rule-sets offer a pre-chaos-theory approach to "pruning" the solution space, or making it manageable. The solution space is that part of a problem domain in which possible solutions are found—although not necessarily feasible solutions, which is why a pruning function is useful. In terms of this model, imagine a problem space as the set of circumstances bounded by the interaction of at least two rival policies. The solution space for one of the rivals is that set of decisions that progressively connects circumstances until they (circumstances) match an acceptable future.

narrative. The actual set of decisions is more efficacious if it leverages rival actions as well as those actions intended by the strategist.

Consider the two great games of strategy, chess and go. <sup>94</sup> Chess is the less complete model of strategy because the object of the game is to eliminate the opponent's capability by capturing pieces. This activity is pursued diachronically, meaning that each piece is captured alone in sequence. The exploitation of enemy action is thus limited to capitalizing on a mistake so that one more piece may be captured. Even the option of luring the enemy into a bad move is contingent upon the idea of forcing a mistake which can only yield the capture of single piece or influence events sequentially. *Go* provides a different solution space. The object of the game is to control territory, and capturing pieces only reflects this control. It is possible to win a game and yet only capture a very small number of enemy pieces. The exploitation of enemy action is limited only by how quickly one can perceive the opponent's intention. One may actually choose to encourage an opponent's perceived intention in order to limit that opponent's set of possible future positions. Within such dynamic solution spaces, the strategist identifies a set of acceptable futures; the clarity with which this set is perceived has a strong influence on how the game progresses. In any case, the final positions in either chess or *go* do not emerge as the ones visualized by either player prior to commencing play.

Each player manipulates circumstances to guide the emergence of an acceptable future. Playing with circumstances in this way involves competition among rivals. Clausewitz tells one quite plainly that war is a form of discourse: "War is not merely an act of policy but a true political instrument, a continuation of political intercourse, carried on with other means." This is the logic behind Clausewitz's insistence that war must further policy. From this logic, it follows that as it goes for war, so it also goes for economics, finance, or any act undertaken by a sovereign community.

<sup>&</sup>lt;sup>94</sup> For more insight of *go* and strategy, see David Lai, *Learning from the Stones: A* Go *Approach to Mastering China's Strategic Concept.* Shih (Carlisle Barracks: Strategic Studies Institute, 2004).

<sup>95</sup> Clausewitz, On War, 87.

Using narrative to bring about an acceptable future cannot happen in isolation; without a rival, there is no reason to pursue strategy. A community is free to simply choose as it pleases, changing the choice if its consequence proves less than optimal. The necessary collaboration of rivals is part of the essential nature of strategy. Equally necessary is the use of decisions and appraisals to configure circumstances over time.

Although the idea of exploitation runs most strongly through the thinking of Sun-Tzu, in the way Thucydides and Clausewitz structure strategy over time as a means to assess and take advantage of enemy weakness, they also clearly advocate exploitation. Taken as a whole, this line of thought suggests that decisions over time generate a stored quantity of potential moral and physical energy. Francois Jullien wrote of Sun-Tzu's image of tumbling logs that "the slope here serves as an image of the propensity that results from the relations of the force that the general knows how to exploit to his advantage."

Understanding the sum of potential forces and the *multiple* tendencies that, collectively, express the propensity within a given set of circumstances is clearly a focus of the strategic rule-set as it functions across all three authors. It is this portion of the rule-set that encourages the belief that strategy seeks to bracket a set of acceptable futures within the set of possible futures. The narrative that furnishes the causal logic within which these rules operate then links circumstances to decisions and converts decisions into additional circumstances so that, over time, one future emerges as the most likely.

<sup>&</sup>lt;sup>96</sup> "The strategic configuration of power is visible in the onrush of pent-up water tumbling stones along... Thus one who excels at warfare seeks victory through the strategic configuration of power, not from reliance on men... On who employs strategic power commands men in battle as if he were rolling logs and stones." Sun-Tzu, *The Art of War* (Ames), 63.

<sup>&</sup>lt;sup>97</sup> Francois Jullien, *A Treatise on Efficacy: Between Western and Chinese Thinking*, trans Janet Lloyd (Honolulu: University of Hawai'i Press, 2004), 18.

#### Validation and Evaluation

Sun-tzu writes, "It is the distinction between 'weak points' and 'strong points' that makes one's army falling upon the enemy a whetstone being hurled at eggs." This idea of purpose achieved through matching strength against weakness runs throughout Sun-Tzu's treatise. Implicit in this statement: before the action of battle, one must identify "weak points" and "strong points." Such a value judgment must be based on some higher-order conception of how forces interact. Having employed this judgment, one must still possess understanding in order to exploit weakness as part of a larger design.

Concepts such as "weak" and "strong" are relative judgments. Within a strategic context, they are meaningful only in reference to each other. As a result, they depend for meaning on the elements used as the basis of comparison. <sup>99</sup> Without some higher order rule to guide the strategist, any determination of the validity of the judgment is at best problematic. If two rivals go to war, simply counting guns on each side does not produce a very useful appraisal of relative strength.

It is the meaning of the disparity, derived from the differentiated circumstances, that provides strategic utility. This seemingly simple statement is another argument for conceiving of strategy as a "rules based" activity. When one seeks to operate according to a rule of any kind, the validity of the rule should be a prime concern. When one wants to know if a set of axioms is valid, the only way to validate these rules or maxims is to access a higher-order system. This is the basic thrust of the "Incompleteness Theorem" as derived by the Austrian logician Kurt Gödel in 1931. <sup>100</sup>

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<sup>98</sup> Sun-tzu, Art of War (Ames), 107.

<sup>&</sup>lt;sup>99</sup> i.e.: how many tanks or rifles? How many troops? Level of training?

<sup>&</sup>lt;sup>100</sup> Ernest Nagel and James R. Newman, *Gödel's Proof, Revised Edition* (New York: New York U.P., 2001), Kindle LOC 1897: "The possibility of constructing a finitistic absolute proof of consistency for a formal system such as *Principia Mathematica* is not excluded by Gödel's results. Gödel showed that no such proof is possible that can be mirrored inside *Principia Mathematica*." This is a statement of the incompleteness theorem, which is generally understood to mean that one cannot derive an absolute proof of the validity of a system using only the components of that system—an external referent is always required. The theorem is not concerned with impossibility vs possibility, but with provability.

In this case, the author argues that the strategist cannot establish the causal logic required for effective strategy without a set of rules external to the circumstances confronted. Since much of a strategist's understanding is based on establishing relevant causal linkages within a specific context, this extension of Gödel's incompleteness theorem supports the existence of a strategic grammar. The Incompleteness Theorem also underscores the necessity of such a grammar for the sort of exploitation that prunes irrelevant circumstances from the solution space in order to map a path towards the set of acceptable futures.

Returning to Clausewitz, it is the connection between policy and action that creates the possibility of meaningful conflict. Policy provides yet another higher-order system against which action may be validated. With the metaphor of the grindstone, Sun-tzu notes that the commander garners efficacy by correctly estimating potential valences such as "strong" and "weak." With this observation, Sun-tzu is able to extend Clausewitz's pragmatic conception of strategy: "The highest excellence is to subdue the enemy's army without fighting at all... the best military policy is to attack strategies." <sup>101</sup> If an enemy's strategy is destroyed, there is no causal logic remaining to guide future action—and no purpose served by continued combat.

Approaching conflict in this way denies the rival or enemy the ability to exploit outcomes—in effect paralyzing their strategic decision-making. As a result, tactical action becomes the enemy's only available action. It is for this reason that the strategic rationale is not dependent on victory for its realization but on the relevant integration of action into a higher-order system. In this vein, B.H. Liddell Hart has written of strategy that, "its purpose is to diminish the possibility of resistance." This is significantly different than diminishing resistance itself. It is a profound insight into the function of strategy within either the narrow confines of force or the expanded conception of strategy as the

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<sup>&</sup>lt;sup>101</sup> Sun-tzu, Art of War (Ames), 100.

<sup>&</sup>lt;sup>102</sup> B.H. Liddell Hart, Strategy (New York: Praeger, 1967), 337.

connecting function between systems within a larger system. Strategy organizes outcomes in relation to the logic of circumstances so that the enemy's capacity to resist is progressively lowered.

Armed with both Clausewitz's complexity and Sun-Tzu's "shih," one reaches the startling conclusion that the grammar of strategy may produce valid propositions within a logic as variable as the circumstances surrounding international and trans-national competition. There are few rules, but an immeasurably large set of sets of circumstances—generating many possible narratives and an everchanging set of possible futures.

# **Implications and Conclusions**

This investigation began with Colin Gray's assertion that the body of strategic thought had not grown since the publication of *On War*. The purpose of examining Gray's positioning of strategy as a modest shelf of "master texts" has not been to produce a competing text, but to recover something essential about strategy itself. Strategy is one of many disciplines through which human beings have attempted to view reality as an ordered set of meaningful relationships.

The strategic approach to the world is distinguished first by its purpose: a collective effort to reach a position of advantage relative to a rival or enemy. It uses narrative to unveil a set of acceptable futures; only narrative allows a community to rearrange circumstances according to a purpose that begins in the past and ends in the future. Narrative, like gravity, gives form and structure to our existence; like gravity, it is fundamental to human experience. Narrative exerts its effect through a kind of yin and yang duality—either it is formed deliberately from what is known or it rises from the unfamiliar and undifferentiated. Confronted by circumstances without the differentiation afforded by narrative, an actor can find no meaning unless he creates an interpretive narrative that allows meaning to emerge. Either way, the strategist faces a narrative compulsion.

The storytelling capacity is part of our neural function. The mind is an associative engine that continuously links sensory impressions to memory and experience in order to determine appropriate

survival responses.<sup>103</sup> When circumstances are unfamiliar the associative capability is paralyzed, a condition that is experienced as anxiety, fear or some other negative emotion. These emotions cue the conscious mind to develop a causal explanation that allows the unfamiliar to become familiar. Familiarity leads to integration with the web of associations. Within narrative, this ability to generate patterns of causality is the basis of plot.

In turn, plot allows actors to differentiate circumstances on the basis of relevance. Relevant circumstances are those circumstances that are most readily used or exploited to configure the total field of circumstances so that it maps into the range of acceptable futures. The sea of circumstances is in constant motion; stories enable people to overlook this complexity and act as if an outcome were probable or even inevitable. Questions of ultimate reality remain in the realm of metaphysics because strategy is based on an evolving spiral of perception, explanation, belief and action.

The narrative form is distinctive because it alone produces a plot that creates meaning through a specific pattern of circumstances. In the world of strategy, the need to generate this form of causal logic is cued by an unconscious apprehension of unfamiliarity. A circumstance arises that cannot be fit into the existing web of associations. The part of the mind that develops survival responses based on patterns of association cues the conscious mind to develop an explanation. This process is dependent upon transformational-type grammatical rules to mediate between the mind of unconscious association and conscious calculation.

As long as strategy is considered as the art of using the engagement for the purpose of the war, to paraphrase Clausewitz, strategy requires some method for taming the sea of undifferentiated circumstance. Such a method must rearrange a complex human system by linking various points in a way that makes the strategist's community better able to survive on its own terms. At present, organizing understanding within the narrative form provides the only way to accomplish this task. A failure to

<sup>103</sup> Recall the work of cognitive psychology as detailed by Daniel Kahneman...

recognize these fundamental elements of strategy makes it that much more difficult to evaluate either the constantly evolving strategic context or the emergent strategies at play within that context.

Thinking of strategy in terms of narrative, logic and grammar allows the strategist to assess action in terms of whether or not it constitutes strategy or some other form of action. Strategy is built on the basis of logic, unified under an overarching purpose; this is the sense in which strategy depends on narrative. Therefore, when a rival's actions over time lead to contradictory outcomes or do not generate advantage, that rival's ability to formulate strategy becomes suspect. An adversary incapable of strategy is less of a threat than one with this capability because it is through strategy that a community moves continuously toward advantage, even as the position of advantage changes.

It may appear as though deception would mask purpose and therefore allow an adversary or rival to *appear* to act without strategy. The narrative theory of strategy is capable of addressing this concern. Because strategy is a "rules based" enterprise, it follows certain patterns. Although the patterns of strategic grammar are highly adaptive and contextual, understanding strategy allows for one to derive appropriate responses to a given situation. It is this possibility that renders deception problematic. Consistently flouting the grammar of strategy cannot sustain advantage over time.

Strategy is thus dependent on the temporal dimension. For this reason, deception works very well over the short term, but over longer stretches of time, strategy must advance a narrative of advantage or it is not strategy. Thus, even if one does not know the explicit or self-conscious narrative behind a rival strategy, one may know the existence of strategy by its fruits.

This is not simply a matter of deeds and words in harmony—one can practice deception and still keep this appearance. The strategist may derive the logic by which circumstances become relevant by observing the decisions made by an adversary over time. This logic, in turn, makes possible the derivation of that portion of the grammar that enacts the logic. Armed with these, the narrative itself can be sketched out. In this manner, one can also evaluate one's own strategy—thus increasing the possibility of incapacitating surprise.

Such conclusions and implications serve to shift the discourse from description to explanation and practice. Understanding strategy as a narrative function over time allows patterns to surface that might otherwise remain hidden. Acknowledging the necessary and sufficient connection between strategy and narrative allows strategic practice to advance in a significant manner. At bottom, this theory allows strategists to rely more on discourse and less on individual intuition as they grapple with the ongoing challenges of the quest for advantage.

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